DOCUMENT RESUME

ED 352 443 CE 061 811

AUTHOR	Bolin, Rick, Ed.; Green, Lori, Ed.
TITLE	Building a Quality Workforce: A National Priority for the 21st Century. Conference Proceedings (Milwaukee, Wisconsin, October 23-25, 1989).
INSTITUTION	Wisconsin Univ. - Stout, Menomonie. Office of Continuing Education and Summer Session.
PUB DATE	89
NOTE	279p.; Occasional pages of small print.
AVAILABLE FROM	Office of Continuing Education and Summer Session, University of Wisconsin-Stout, Menomonie, WI 54751-0790 ($5 plus $2.50 shipping and handling).
PUB TYPE	Collected Works - Conference Proceedings (021)
EDRS PRICE	MF01/PC12 Plus Postage.
DESCRIPTORS	Adult Literacy; Artificial Intelligence; Dislocated Workers; Economics; *Education Work Relationship; *Employment Patterns; Job Performance; *Job Training; *Labor Force Development; Labor Needs; Labor Supply; Literacy Education; Minority Groups; Multicultural Education; Older Adults; Organizational Effectiveness; Personnel Management; Postsecondary Education; *Productivity; Quality of Working Life; Retraining; *School Business Relationship; Secondary Education; Sex Fairness; Vocational Education

ABSTRACT

Selected titles from a conference on building a quality workforce are as follows: "Action Packed 'Practical Education Now'" (Walters); "Adjusting to Transitions" (Schall, Dluzak); "Adult Literacy" (Nichols); "Aging Workforce" (Stowell et al.); "Artificial Intelligence and Human Performance Technology" (Ruyle); "Basic Academic Skills Problem" (Jackson-Beeck); "Blue Collar Worker" (Menson); "Building an Ethical Framework for the Workplace" (Rickert); "Career Wellness in Human Resource Development" (Schwartz); "Case Education and Improvement Center" (Vandenberg et al.); "Child Care as a Vehicle for Building a Quality Workforce" (Herr et al.); "Cities in Schools" (Ward); "Creating a Multi-Competency Work Force for the Future" (Gerard); "Dual Career Couples" (Horrace); "ED-Net" (Calhoun); "Eldercare" (Schmall, Stiehl); "Entry-Level Worker Study" (Owens et al.); "Facilitating Partnerships to Address Workforce Issues" (Berger); "High-Technology Training Model" (Lee et al.); "Humanizing Work" (Baughman); "Immigrants" (Dicken, Blomberg); "Implementation Strategies for Employer-Supported Child Care Programs" (James); "Intercultural Training for the 21st Century" (Myers); "Meeting Workforce Needs for Child/Elder Care" (Meyer, Babin); "Minnesota Pluralism Council" (Franzen); "Construction Industry Productivity and Workforce Quality of Life" (Browning); "Older Worker 'Recycling'" (Hale); "Older Workers in a High-Tech Workplace" (Hay); "Opening Eyes, Opening Hearts" (Worthley); "Program Planning Meets Labor Market Reality" (Cazeno et al.); "Project AHEAD and Project Networking" (Kuhlman, Allen); "Project RESOURCES" (Yoseloff); "Project STAY" (Lyon); "Proven Curriculum and Methodology for Creating a Technologically Literate Workforce" (Agosta); "Urban Minorities as Natural Resource Professionals" (Hamilton et al.); "Providing Technical Training for Women and Minorities" (Evans, Gulker); "Public Works Academy" (Richardson); "Role of Education and Human Resource Information Systems in Curtailing Perceptual and Organizational Barriers to Women's Training and Organizational Advancement" (Ready); "When Cultures Clash" (Wagner); and "Working with Industry to Achieve Industrial Excellence" (Norton). (KC)

Building A Quality Workforce: A National Priority for the 21st Century

CONFERENCE PROCEEDINGS

ED352443

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

R Bolin

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CE 061 811

A National Conference
October 23-25, 1989
Milwaukee, Wisconsin

BEST COPY AVAILABLE

Copyright ©1989
Office of Continuing Education and Summer Session
University of Wisconsin-Stout
Menomonie, Wisconsin 54751

All rights reserved.

Other than instructors who are permitted to photocopy isolated articles for non-commercial classroom use without fee, no part of this book may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying or recording, or by any information storage or retrieval system without permission in writing from the publisher.

Introduction

Building A Quality Workforce: A National Priority For The 21st Century was the second in a series of national conferences on the status of the nation's workforce offered by the University of Wisconsin-Stout and other cosponsors. The rapidly changing nature of the workforce poses significant issues, concerns, and problems for employers and educators, both of whom must address the needs emerging from the population and societal shifts which significantly impact the nature of the future workforce.

The conference focused upon the education and training of our increasingly diverse workforce, and was designed to help leaders in business, industry, labor, government, and education gain valuable insights into potential directions for their own program development.

Three keynote speakers addressed specific issues of major concern to all, and a brief description of their presentation follows. Videotapes of their presentations can be ordered using the form on the next page. Over 140 speakers in some 85 special interest sessions made presentations focusing upon minorities, immigrants, literacy and basic skills issues, the aging worker, women, the developmentally disabled worker, child care and elderly care, increased productivity, the increasingly complex skills needed to become a viable member of the future workforce, and related topics. Many model programs, partnerships, and other collaborative efforts targeted at solutions to workforce problems were presented.

Rick Bolin, Associate Director of Continuing Education, coordinated the conference through the Office of Continuing Education and Summer Session, University of Wisconsin-Stout, with the valuable assistance of Director John Van Osdale, Outreach Program Managers Deanna Applehans and Kim Falk, Presenter Coordinator Lori Green, and the staff and students of the unit. Working together, the staff and the cosponsors produced a valuable meeting of contemporary thinkers on the topic of the workforce, and an exciting sense of synergism permeated the atmosphere of the conference.

In this Proceedings, the Office of Continuing Education and Summer Session is presenting conference documents in original form, as submitted by authors. Thus, the publication will vary slightly in form from paper to paper. We hope that this will clearly convey each author's original thoughts and will be of benefit to our readers. The ideas, products, services and opinions expressed in these papers reflect the thinking of their authors. Their inclusion in this publication does not necessarily constitute endorsement by the Office of Continuing Education and Summer Session, University of Wisconsin-Stout, or the cosponsors.

Rick Bolin and Lori Green, Editors
December, 1989

Keynote Presentations

THE GLORY AND POWER OF A MULTICULTURAL WORKFORCE
Dr. S.B. Woo

Is a multicultural workforce a debit or an advantage? In an inspirational message, Dr. Woo shares his belief that it is a big plus for America in this modern age of global economic competition. Dr. Woo is a physicist, a former Lieutenant Governor of Delaware, and the Democratic nominee for the U.S. Senate in 1988. As Lt. Governor, he held the highest elected state office ever by a Chinese-American, as well as being the first Chinese-American senate nominee in the continental United States.

Dr. Woo spent the past year on sabbatical from his faculty position at the University of Delaware, sharing his experiences in politics and science at the Institute of Politics, Kennedy School of Government, Harvard University. He was recently selected as an Institute Fellow for the Kennedy School.

Born in Shanghai, China, Dr. Woo lived in Taiwan and Hong Kong before coming to this country to study physics and math. He received his BS, summa cum laude, from Georgetown College in Kentucky, and his PhD in physics from Washington University in St. Louis.

RETOOLING TODAY'S WORKERS FOR TOMORROW'S JOBS
Dr. Pat Choate

In the year 2001, more than 90% of those who will constitute the U.S. workforce will already be adults, and most already at work. Virtually all of these workers will require major booster shots of education and training in the 1990's if their performance is to be adequate to the demands of their work. If the workers are to get the education and training they require, fundamental changes are necessary in present policies and practices of both American education and American employers. The challenges and options they face will be addressed.

"The hottest idea man in Washington" and "the intellectual godfather of the competitiveness issue" are only two of the titles reserved for Pat Choate, Vice President of Policy Analysis of TRW, Inc. As TRW's "one-man think tank" he is an "idea man." His proposals to rebuild America's failing industries have led to at least ten bills being considered in Congress. A business futurist and economist, he is the author of numerous publications on economic competitiveness, trade, political economy, management, education and public administration. His books include, Retooling the American Workforce, America in Ruins, Being Number One, Thinking Strategically, and most recently, The High-Flex Society. He was also a contributor to ASPA's Work in the 21st Century. As TRW's "resident scholar," he is the kind of big-picture thinker who spends a lot of time figuring out what ought to be done in the American economy and advancing public policy remedies.

He is chairman of the Congressional Economic Leadership Institute, chairman of the Northeast-Midwest Congressional Institute's Task Force on Regional Competitiveness, board member of the Congressional Institute on the Future, and chairman of the National Association of Manufacturers Subcommittee on Employment and Training Policy. Dr. Choate's BA in Economics and Political Science is from the University of Texas-Dallas, and his MA and PhD are from the University of Oklahoma in Economics and Political Science.

MADE IN AMERICA:
REGAINING THE PRODUCTIVE EDGE
Dr. Richard Lester

What has happened to American industrial productivity, and how can the U.S. get back onto the path of high productivity growth? The weaknesses in American industry extend beyond the macroeconomic environment, and concern the way people think, cooperate, invest, manage, and organize themselves as well as the ways they become educated, use technology, and learn a new job. Wrenching changes at all levels will be necessary if American corporations are to keep pace with international competition, the increasing sophistication of consumers throughout the world, and rapid changes in technology. Industry, government, and the education system need to pursue an integrated strategy for increased productivity, including placing a new focus on the production system, cultivating an educated, involved and motivated workforce, seeking the most productive blend of cooperation and competition, and providing adequately for the future through investment in people as well as plant and equipment.

Dr. Richard Lester has served since 1986 as Executive Director of the Massachusetts Institute of Technology Commission on Industrial Productivity. In addition, he is an Associate Professor of Nuclear Engineering. His research interests have focused on technological, economic and public policy aspects of nuclear power and its fuel cycle. Dr. Lester has served frequently as an advisor or consultant to government agencies, corporations, and foundations, and is currently a member of the National Academy of Sciences' Board on Radioactive Waste Management. He is a co-author of Made In America: Regaining The Productive Edge. His BS in Chemical Engineering is from the Imperial College of Science and Technology at London University, and he received his PhD in Nuclear Engineering from M.I.T.

CONFERENCE MATERIALS ORDER FORM

Building a Quality Workforce: A National Priority for the 21st Century

Name: _____ **Title:** _____

Address: _____

Phone(home) _____ **(business)** _____

Proceedings:	$10.00 x _____	= $ _____
Video tapes of Keynote Addresses:		
A. Set of three:	$75.00 x _____	= $ _____
B. Individual:		
1.Retooling Today's Workers For Tomorrow's Jobs Dr. Pat Choate	$29.95 x _____	= $ _____
2.Made In America: Regaining The Productive Edge Dr. Richard Lester	$29.95 x _____	= $ _____
3.The Glory And Power Of A Multicultural Workforce Dr. S.B.Woo	$29.95 x _____	= $ _____
	Subtotal	= $ _____
Wisconsin Residents add 5.5% Sales Tax		= $ _____
Plus Shipping and Handling (for video tapes only)		= $ 4.00
Total Amount		= $ _____

☐ Visa ☐ MasterCard ☐ Check (made payable to UW-Stout)

Card Number: _____

Expiration Date: _____

Signature: _____

Date: _____

This gives UW-Stout authorization to charge these materials to the above card.

You may FAX your order to us if you are paying by charge card. FAX #: (715) 232-3385. Please allow six weeks for delivery.

Return form and payment to:

Building A Quality Workforce
Office of Continuing Education and Summer Session
University of Wisconsin-Stout
Menomonie, Wisconsin, 54751

Table of Contents

PRESENTATION	PAGE
1. Action-Packed "Practical Education Now"! A Partnership Model Jane Walters, Director, School/Business Partnerships, Pattonville School District, St. Ann, MO	1
2. The Adjusting To Transitions Program: The "Alliance Partnership" Celestine Schall, Director of Career Development, Alverno College, Milwaukee, WI; Georgine Dluzak, Assistant Director, Career Development, AT&T; and the Local Chair of Alliance	5
3. Adult Literacy: An Economic Interest J. Hugh Nichols, Director, Economic Department, Middle South Electric System, New Orleans, LA	9
4. The Aging Workforce: A View Toward The Future Anita Stowell, Senior Project Administrator, Dr. Nina Feldman, Research Associate, and Wendy Heil, Research Assistant, AARP, Washington, D.C.	15
5. Amplify People Performance With Expert Systems Paul Siegel, Expert Systems Workshops, Long Beach, CA	19
6. Artificial Intelligence And Human Performance Technology: Enhancing The Workforce Dr. Kim Ruyle, Department of Industrial Studies, University of Wisconsin-Platteville, WI	25
7. BASEC: A Dynamic Public/Private Partnership Assisting Minorities Patricia Owens, Placement Specialist, BASEC, Department of Personnel Administration, Boston, MA	33
8. The Basic Academic Skills Problem: Minnesota's Study On Standards For High School Education Dr. Marilyn Jackson-Beeck, Program Evaluation Coordinator, Office of the Legislative Auditor, State of Minnesota	37
9. The Blue Collar Worker: Where Do They Fit On Our Campuses And In Our Training? Elizabeth Menson, Consultant to UAW/Ford, Lancaster, OH	43
10. Building An Ethical Framework For The Workplace Dr. Shirley Rickert, Professor of Supervision, Indiana-Purdue University at Fort Wayne, IN	45
11. The CAREER WELLNESS Conceptual Model David Schwartz, Director, Career Resources, St. Edward's University, Austin, TX	49
12. The Case Education And Improvement Center: A Partnership In Workplace Literacy And Basic Skills Virginia Vandenberg, Gateway Technical College; Carl Zemke, United Auto Workers Local 180; Donald Matt, J.I. Case Management,Racine, WI	53
13. The Changing American Workforce–A Chinese Prospectus Michal Settles, Director of Administration, AC Transit, San Francisco, CA Arthur Williams, Director of Training, Boys Clubs of America. Atlanta, GA	55
14. Child Care As A Vehicle For Building A Quality Workforce Dr. Judy Herr, Dahlgren Professor of Early Childhood, University of Wisconsin-Stout; Eileen Zenk (Work/Family Directions); Sandy Matter (Marquette Electronics); JoAnne Brandes (Johnson Wax); Ken Riemer (Children's World Learning Center)	59
15. Cities In Schools–Reconnecting The Disconnected Al Ward, North Central Region Director, Cities In Schools, Inc., Chicago, IL	69
16. Corporate Basic Skills Training Programs: A Functional Context Approach Jorie Philippi, Senior Associate for Workforce Literacy, National Alliance of Business, Washington, D.C.	73

PRESENTATION	PAGE

17. **Creating A Multi–Competency Workforce For The Future** 77
Roger Gerard, Director of Human Resources, Northern Michigan Hospitals, Inc.

18. **CREST: A Pilot/Demonstration Project For Prevocational Literacy Skills Instruction To Urban Adults** 81
Caridad De Paola, Coordinator, Division of Continuing Education, Rutgers University, NJ

19. **Dual–Career Couples: Implications, Trends, A Framework For Increased Productivity And Life Satisfaction** 87
Carlotta Horrace, Academic/Career Advisor, Teachers College, University of Nebraska-Lincoln

20. **ED>Net: California's Unique Approach To Networking Community College Economic Development Programs** 93
Dr. A. Brian Calhoun, Executive Director of Economic Development, Fresno City College Training Institute, CA

21. **Eldercare: A Growing Dilemma For Employees And Employers** 97
Dr. Ruth Stiehl, Director, Training and Development Graduate Program,
and Dr. Vicki Schmall, Gerontology Specialist, Oregon State University, Corvallis, OR

22. **Entry-Level Worker Study: Innovations And Implications For Training And Retaining** 101
Frances Lindner, Research Specialist, Northwest Regional Education Laboratory, Portland, OR

23. **Facilitating Partnerships To Address Workforce Issues: A Pennsylvania Experience** 103
Carlton Berger, Executive Policy Specialist, Pennsylvania MILRITE Council, Harrisburg, PA

24. **The High Technology Training Model: Identifying Required Competencies and Training Needs** 107
Dr. Orville Nelson, Project Director;
Dr. Howard Lee, Co-Director, Center for VTAE;
Tim Mero, Project Research Associate; all of the University of Wisconsin-Stout, WI

25. **Humanizing Work: The Challenge For Employers, Managers, And Trainers** 111
Dr. Donald Baughman, Associate Professor of Psychology, University of Wisconsin-Stout, WI

26. **Immigrants: Can They Provide A Significant Share Of The Future Workforce?** 119
Robert Blomberg, Administrative Management Development Coordinator, Mayo Health Care System,
and Brenda Dicken, Graduate Student, Rochester, MN

27. **Implementation Strategies For Employer–Supported Child Care** 125
Dr. Alfred James, Assistant Professor, Early Childhood Education, Washburn University, Topeka, KS

28. **Increasing Career Opportunities For A Diverse Workforce In The Federal Government** 129
Amiel Sharon, Cheri Bridgeforth, Wendell Joice, U.S. Office of Personnel Management, Washington, D.C.

29. **Integrating Correctional Clients Into The Workforce** 131
Robert Hable, Art Besse, and Gary Grueter, Division of Corrections, State of Wisconsin

30. **Integrating Refugees Into The Workplace Through Welfare Reform Initiatives** 135
Diane Pavelski, Economic Development Coordinator,
Jack O'Connell, ABE Coordinator, and
Joyce Philen, WEJT Specialist, Chippewa Valley Technical College, Eau Claire, WI

31. **Intercultural Training For The 21st Century: One Consultant's Experience** 141
Selma Myers, President, Intercultural Development, Inc., Solana Beach, CA

32. **Intercultural Training: The Use Of The "Intercultural Sensitizer"** 143
Dr. Amy Tolbert, University of Minnesota, MN

33. **Linking Economic Development Loans, JTPA and Vocational Education in North Philadelphia Enterprise Zones** 147
W.M. Christman, III, Vice President, Research and Planning, Philadelphia Industrial Development Corporation, PA

34. **Meeting The Workforce Needs For Child/Elder Care: A Training Model For Workers With Developmental Disabilities** 151
Dr. Scott Meyer, Assistant Professor of Social Work and Sociology, Plymouth State College, NH
Susan Babin, Administrator, Division of Retardation and Developmental Disabilities,
Rhode Island Department of Mental Health, Retardation and Hospitals

PRESENTATION	PAGE

35. **The Minnesota Pluralism Council: A Model For Sharing** 159
David Franzen, Manager, Premises Systems, U.S. West Communications,
and member of the Minnesota Pluralism Council.

36. **A Model To Increase Industry Productivity And The Quality Of Life Of The Construction Industry Workforce** 163
Dr. Gilbert Browning, Department of Construction Science,
Texas A & M University, College Station, TX

37. **Older Worker "Recycling": One Key To A Quality Workforce** 169
Dr. Noreen Hale, Director, Center for Curriculum Development,
National College of Education, Lombard, IL

38. **Older Workers In The High-Tech Workplace** 173
Dr. Gloria Bittner Hay, Coordinator, Office Administration and Business Communication Programs,
Management Institute, School of Business, University of Wisconsin-Madison, WI

39. **Opening Eyes, Opening Hearts:** 177
A Simulation Of The Problems Of Ethnic And Cultural Minorities In The Classroom
Karin Worthley, Reading/Writing Specialist, University of Wisconsin-Stout

40. **The Pivotal Role Of "Employment Security" In Formulating Tomorrow's Workforce Strategies** 181
Dr. David Gordon, Director, MBA Program in Engineering and Industrial Management,
University of Dallas, TX

41. **Program Planning Meets Labor Market Reality** 187
Brenda Njiwaji, Manager of Field Analysis;
Celia Washington, Plant Closing Services Coordinator;
and David Woehler, Assistant Manager/Pontiac Branch;
Michigan Employment Security Commission, Detroit, MI

42. **Project AHEAD and Project NETWORKING (A 2-Part Session)** 191
Dr. Judy Kuhlman, Executive Director,
and Neva Allen, Director of Special Targeted Populations,
Western Missouri Private Industry Council, Inc., Sedalia, MO

43. **Project RESOURCES: Recognizing The Older Worker As An Integral Part Of The Workforce** 195
Darlene Yoseloff, Project Director, Project RESOURCES,
Division of Community Education, Middlesex County College, Edison, NJ

44. **Project STAY: School Dropouts And The Workforce** 199
Dr. Judson Lyon, Administrator, Project STAY, Milwaukee Public Schools, WI

45. **A Proven Curriculum And Methodology For Developing A Technologically Literate Workforce** 203
Paul Agosta, Director of Marketing, Advanced Center for Technology Training, Farmington Hills, MI

46. **Provide Qualified People: Urban Minorities As Natural Resource Professionals** 211
Larry Hamilton, Director, and Sandy Austin, Education Specialist,
Phoenix Training Center, BLM, Department of the Interior

47. **Providing Technical Training For Women And Minorities: An Ohio Partnership** 217
Dan Evans, Director of Continuing Education, Shawnee State University, Portsmouth, OH,
and Gary Gulker, Director, Center for Business and Industry, Shawnee State University

48. **Public Works Academy: A Model Program** 221
William Swales, Industry Services Specialist, Pinellas County Schools
Thomas Laughlin, Work Training Methods Analyst, City of St. Petersburg
Karen Richardson, Training Specialist, City of St. Petersburg. FL

PRESENTATION	PAGE

49. **Retraining For Quality Through Partnerships: The General Motors 530 Project Model** 223
Jim Armstrong, GM Training Coordinator;
Mike Marcks, UAW Representative to the 530 Project;
Jane Svennevig, Blackhawk Technical College, WI

50. **The Role Of Education And Human Resource Information Systems In Curtailing Perceptual And Organizational Barriers To Women's Training And Organizational Advancement** 227
Dr. Kathryn Ready, Assistant Professor, University of Wisconsin-Eau Claire, WI

51. **The Role Of Two–Year Colleges In The Development And Implementation Of An Innovative Staff Development Program In The Steel Industry** 233
Harold Sargus, Assistant Dean for Continuing Education;
Marshall Piccin, Assistant Dean for Engineering Technologies;
Thomas Tarowsky, Director of Counseling and Placement, Belmont Technical College;
JW Wallace, Manager of Corporate Training, Wheeling–Pittsburgh Steel Corporation;
Tracee Joltes, Director, Business and Industrial Training, Jefferson Technical College, OH

52. **The Sandwich Generation: An Increasing Workforce Concern** 237
Margaret Arnold, Manager, Women's Activities, AARP, Washington, D.C.

53. **Self-Managing Work Teams For Improved Quality And Increased Productivity** 239
Phyllis Pirner and Wayne Rydberg, Training/Development Specialists,
Aid Association for Lutherans, Appleton, WI

54. **Skilled Worker Emeritus Program** 243
David Gillette, Executive Director, New York State Job Training Partnership Council, Albany,
and Dr. Toni Cleveland, Assistant to the President, SUNY-Morrisville College, NY

55. **State And Local Response To Dislocation Events** 247
Dan Bond, Wisconsin Department of Industry, Labor and Human Relations
Jack Ward, UAW/JDTC Southeast Wisconsin Re-employment Program, Worker Assistance Center

56. **Structural Deficiencies In Affirmative Action Employment Programs** 251
Dr. Michael Orok, Training and Development Director, City of Macon, Georgia

57. **User Friendly Performance Management** 259
Deborah Spring Laurel, President, Laurel and Associates, Madison, WI

58. **When Cultures Clash: Managing Conflict Between Corporate Cultures And Multicultural Workforces** 265
Dr. Irma Guzman Wagner, Professor/Director,
Program of Educational Administration/Higher Education, San Jose State University, CA

59. **Working Today, Preparing For Tomorrow: Cooperative Computer–Based Project In Artificial Intelligence** 273
Dr. Judith Harris, Instructional Designer and Project Editor,
McDonnell Douglas AI Project, St. Louis Community College, MO

60. **Working Well With The Other Sex: A Practical Guide To Managing Differences Between Men And Women At Work** 277
Gene Deborah Weissman, Senior Consultant, LMA, Inc., Milford, NH

61. **Working With Industry To Achieve Industrial Excellence** 283
Dr. Robert Norton, Senior Research and Development Specialist,
Center on Education and Training for Employment, The Ohio State University

62. **Your Workforce: In-House Experts!** 293
Jon Theuerkauf, President, Business and Educational Associates, Inc., Michigan City, IN

ACTION-PACKED
"PRACTICAL EDUCATION NOW" (PEN)

JANE WALTERS, DIRECTOR
SCHOOL/BUSINESS PARTNERSHIPS
PATTONVILLE SCHOOL DISTRICT, ST LOUIS COUNTY, MO

Abstract

"PEN" is a successful 15-year old program to provide students with practical hands-on experience in the work world prior to graduating. Over 1,000 have participated in this award-winning program in St. Louis and Kansas City areas.

A Partnership Model

"Who will do America's work as the demand for skilled labor outstrips a dwindling supply? The U.S. has lost much ground to competitors, and investing in people looks like the way to retake it. After years of neglect, the problem of human capital has become a crisis," according to Business Week Magazine. (Nussbaum, 1988)

"It costs corporations over $200 billion each year to train their workforce. A large percentage of this is for education that individuals should have received in school." (Federal Private Sector Task Force on Productivity Improvement, 1986)

Fortune Magazine says, "Let's stop lamenting the crisis and do something about it." (Perry, 1988)

The time is now! President Bush's summit with the governors revealed that federal dollars have not been spent efficiently on education. Bush agreed that we need to look for **results** in dispersing funds as mentioned in Time magazine. (Tifft, 1989)

Results we have with Missouri's long-standing, 15 year Practical Education Now program. Over 1000 students have participated and success stories abound. Today many students are skilled workers, managers, supervisors, and owners of firms.

Schools have business and office education courses which boast the same sophisticated equipment on which students would be gaining "hands-on training" in a modern office. There are also classroom simulation programs in which students become "employees" and the teacher becomes an "office manager."

A unique program called "PEN" takes this realism one step further. It moves the students out of the traditional classroom and into a professional office.

Concept and Application

Our 15 year success story started in 1974 when Edward D. Jones, Jr. of Edward D. Jones & Company, a St. Louis based investment firm, was approached to hire students for part-time positions. More meetings ensued, and a more extensive plan was envisioned which included a classroom for students "onsite" at the business. A rotation system was designed which takes the students to many departments of the company permitting students to gain perspective on how departments depend on each other to carry out company goals. In addition, students acquire knowledge on possible future careers as they rotate through such departments as accounting, word processing, human resources, customer relations, boardroom, et al. All of these departments represent careers which could be applied to the internship company or to other companies of choice.

Covering all Bases for Implementation

Approval had to be gained by many individuals with the company, the school district, the New York Stock Exchange, and the community. Fortunately we had forward-moving individuals who could picture the dramatic results that could be achieved with a realistic program of this magnitude.

Voluntary company mid-management participation was emphasized. The teacher/coordinator was selected on the basis of business & education background and a strong desire to participate in the project. Students were selected on the bases of attendance records, school attitudes, skills, and strong desire to enter program.

Workshops and Open Houses

Workshops and Open Houses were held with department supervisors to establish a format for the program. Objectives, strategies, and activities for both classroom and "on-the-job" programming were developed with supervisors. Schedules were accomplished, evaluation procedures were established, an on-going publicity plan was designed, and parents were invited to an open house to explain the program. Parents were overwhelmingly in favor of the program and made such comments as: "We wish we had had this opportunity when we were in school."

Company Advantages Include the Following:

1. opportunity to recruit the students who perform well both in the classroom and on the job during part-time employment. (This method is superior to hiring persons off the street who may or may not have the attitudes and skills required for the job)
2. access to valuable part-time employees because students have experience in various departments
3. training plan that empowers employees to roles of supervisors since employees train students during rotation process
4. assistance from students when full-time employees are unavailable because of illness or vacation
5. opportunity to assemble students for peak loads
6. job versatility -- students are able to change from job to job as needed
7. cost effectiveness -- cost is less than utilizing a temporary agency for part-time employment
8. certified business education teacher supervises students daily. (Teacher utilized by the company as a resource for present clerical employees.)
9. excellent public relations

Major Awards Include the following:

1975	State Award for Innovative Projects
1976	PEN Director - Outstanding Business Educator Award
1984	10 year proclamation - Missouri's Governor Bond - now U. S. Senator
1985	State Outstanding Vocational Education Award
1986	National finalist - Secretary's Award for Outstanding Vocational Education Programs
1986	Company award - Private Sector Initiative Division of the White House Award

EVALUATIVE FEEDBACK

EDWARD D. JONES, EDWARD D. JONES & COMPANY

"The cooperative training program with local area high schools working with our Operations Department has been outstandingly successful. The high school classroom in our office brings serious minded young people face to face with the daily work of a brokerage firm, and they bring the enthusiasm and cheerfulness of youth into our shop." E. D. Jones, (company newsletter, 1975)

JOHN BACHMANN, MANAGING PARTNER, EDWARD D. JONES AND COMPANY

Managing partner, John Bachmann, recently announced the firm's creation of an $100,000 scholarship for Pattonville and Normandy High School students in St. Louis planning to attend Westminster College in Fulton, Missouri. "We believe that the cooperative education program we have had with Pattonville and Normandy has been a priceless asset to the firm. And we feel these scholarships will be significant in showing these high school students that we at Edward D. Jones & Co. recognize and appreciate their abilities. J. Bachmann (company newsletter, March 1983)

"Our relationship with Normandy High School through the PEN program has been an extremely important one to the firm, and we are glad to be able to help them because of our relationship with and respect for Normandy High School students. Today we have 30 former PEN students working in various departments throughout the firm, many of whom have become supervisors and key people in our operation. It's got to be the most mutually beneficial relationship between business and education that has ever been tried, and we view our support of the Normandy sports program as another important means of furthering the strength of this relationship." News of the commitment was covered by the Wall Street Journal, Post-Dispatch & Globe Democrat newspapers. Local radio and TV stations carried features on the story. J. Bachmann (company newsletter, July 1982)

DARRYL POPE, OPERATIONS PARTNER, EDWARD D. JONES & CO.

"The PEN program has been so successful at Edward D. Jones that it has become the model for other training programs we have implemented. A highlight of any business tour of our firm is an explanation of our PEN program." D. Pope (personal communication, March 13, 1985)

U. S. SENATOR BOND, THEN MISSOURI GOVERNOR

"Congratulations on the outstanding ten year success of the PEN program. It was a great honor for me to join you for the celebration and to meet your current students, as well as all of the ten year students who are now enjoying such successful careers with Edward D. Jones & Co. C. S. Bond (personal communication, April 9, 1984)

OPERATIONAL PROCEDURES

The chart below represents PEN's operational procedures. All students take two (one hour classes in English, History, or whatever they need for graduation at their home high school before going to the business.

(Two Hour Block) Morning Schedule at the business

1st Semester

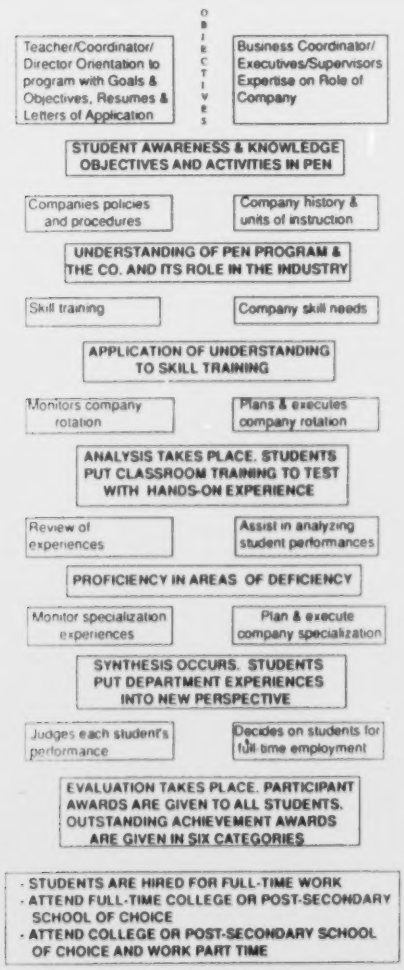
Orientation to the program and to the business Skill training	5 weeks
Human Relations Skill training	2 weeks
Telephone techniques Skill training	2 weeks
Rotation through designated departments of the company Skill training	10 weeks

2nd Semester

Concentrated efforts on individual needs revealed in dept rotation 1st semester Skill training	6 weeks
Specialization in departments of choice (student's career choice when possible) Skill training	10 weeks
Preparation for life after graduation (college or work world) Skill training	3 weeks

(Testing and individual progress discussions throughout.)
(Most students in the afternoon become part time employees.)

FLOW CHART


OBJECTIVES
Teacher/Coordinator/ Director Orientation to program with Goals & Objectives, Resumes & Letters of Application
Business Coordinator/ Executives/Supervisors Expertise on Role of Company
STUDENT AWARENESS & KNOWLEDGE OBJECTIVES AND ACTIVITIES IN PEN
Companies policies and procedures
Company history & units of instruction
UNDERSTANDING OF PEN PROGRAM & THE CO. AND ITS ROLE IN THE INDUSTRY
Skill training
Company skill needs
APPLICATION OF UNDERSTANDING TO SKILL TRAINING
Monitors company rotation
Plans & executes company rotation
ANALYSIS TAKES PLACE. STUDENTS PUT CLASSROOM TRAINING TO TEST WITH HANDS-ON EXPERIENCE
Review of experiences
Assist in analyzing student performances
PROFICIENCY IN AREAS OF DEFICIENCY
Monitor specialization experiences
Plan & execute company specialization
SYNTHESIS OCCURS. STUDENTS PUT DEPARTMENT EXPERIENCES INTO NEW PERSPECTIVE
Judges each student's performance
Decides on students for full time employment
EVALUATION TAKES PLACE. PARTICIPANT AWARDS ARE GIVEN TO ALL STUDENTS. OUTSTANDING ACHIEVEMENT AWARDS ARE GIVEN IN SIX CATEGORIES
- STUDENTS ARE HIRED FOR FULL-TIME WORK
- ATTEND FULL-TIME COLLEGE OR POST-SECONDARY SCHOOL OF CHOICE
- ATTEND COLLEGE OR POST-SECONDARY SCHOOL OF CHOICE AND WORK PART TIME

ERIN REA, FORMER PATTONVILLE PEN STUDENT

"I feel that the PEN program is an excellent program for eligible high school students that are interested in the business world. If there were one thing that I would like to see happen in the PEN program it would be to expand PEN across the United States. I believe that every student should have the opportunity to broaden interests and gain valuable knowledge and skills learned only through business "hands-on" programs such as PEN." E. Rea (essay, 1984)

STEFAN P. KRCHNIAK, PROFESSOR, SOUTHERN ILLINOIS UNIVERSITY AT EDWARDSVILLE

"I commend you and your colleagues on the pioneering effort and will do my best to spread the word to my graduate students and higher education colleagues. Yours is perhaps the most comprehensive and long-term proven partnership in the greater St. Louis region and all of us can learn from you." S. P. Krchniak (personal communication, January 8, 1988)

DR. ROGER A. CLOUGH, SUPERINTENDENT, PATTONVILLE SCHOOL DISTRICT

"The Edward D. Jones School/Business Partnership (PEN) is unparalled in our area and region. It is truly commendable because it has stood the tests of both time and accomplishments. When considering participants' successes, this program is truly noteworthy. What we need are more companies like Edward D. Jones & Company. Public Education's future depends on the Edward D. Jones of this world. Take the challenge, get involved!!" R. A. Clough (personal communication, October, 1989)

References

Federal Private Sector Task Force on Productivity Improvement (1986). Is there a Crisis in the U. S. Education System?

Nussbaum, Bruce (1988, September 19). Needed: Human Capital. Business Week, p. 100.

Perry, Nancy J. (1988, November 7). Let's Stop Lamenting the Crisis and Do Something About It. Fortune Magazine, p. 42.

Tifft, Susan (1989, October 9). Critical Problems Facing American Public Education. Time, p. 60

BEST COPY AVAILABLE

Celestine Schall, M.A.
Georgine Dluzak, M.A.

ABSTRACT

This paper addresses the key factors in the collaborative efforts of a Joint Venture program. Alverno College and Alliance Partnership (Communications Workers of America, International Brotherhood of Electrical Workers and AT&T management) joined together to give workers Adjusting To Transitions workshops and Making Alternative Plans career counseling. During these sessions, workers make Career Action Plans and then become eligible for funding for re-training programs of continuing education.

An Alverno-Alliance Partnership

Alverno College and Alliance, for over one year now, have been in a joint ventures partnership to deliver education services to workers at AT&T. This program is called Adjusting To Transitions (ATT).

BACKGROUND

Building a quality workforce is the joint responsibility of higher education, labor, government and business. Finding supportive evidence for such an assertion is not difficult.

As we observe the rapid technological changes surrounding us, we realize the need there is to focus upon the seriousness of the demands placed upon workers to upgrade their skills in order to continue to be employable in the labor market. Consider the prediction that more than 50% of the jobs created between now and the year 2000 A.D. will require education beyond high school.[1] Today, 58% of all existing jobs require only high school education or less. With such knowledge of the future work world, upgrading the skills of employees becomes a prime concern for productivity in business and industry. Since falling numbers of new workers reduce employer's hiring choices, these demographic changes mean that a growing share of the new skills needed in industry will have to be met by retraining existing workers. Since employers have traditionally met their increased needs for human capital by hiring recently educated individuals, these demographic changes also challenge employers training strategies.[2]

From the perspective of government, the National Governors Association reported at the national conference, A More Productive Workforce, that States need to play a critical role in assisting the workforce to become more productive and adaptable to change. The key to more productivity lies in upgrading the skills of today's workers through encouraging lifelong learning and by expanding opportunities for worker education and training.

[1] William B. Johnston and Arnold E. Packer et al., Workforce 2000: Work and Workers for the 21st Century, (Indianapolis, IN: Hudson Institute, 1987), p. 96.

[2] Roger J. Vaughan and Sue E. Berryman, "Employer-Sponsored Training: Current Status, Future Possibilities," sec C, p. 24, A More Productive Workforce: Challenge for Post-Secondary Education and its Partners, (n.p., May 1989).

BEST COPY AVAILABLE

Higher Education, on the other hand, must seek better ways to serve adults through a more accurate assessment and recognition of their potential both as learners and workers. Then, as education providers, higher education will use these assessment results to meet adults "where they are" in adult programs.

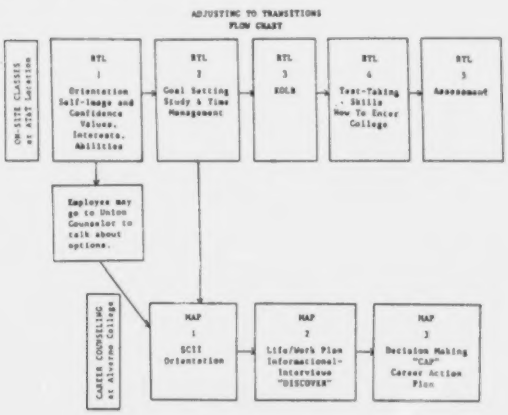
In recent years, many Labor Unions, true to their roots as advocates of workers, have included in collective bargaining, funds for new education programs to train, upgrade and retrain employees. Frequently in these contracts companies pledged a specific amount to subsidize the new education programs. That is how the Alliance program was born. Alliance is a joint venture between labor and management. In this cooperative venture AT&T, CWA (Communications Wokers of America) and IBEW (International Brotherhood of Electrical Workers) dedicate their efforts to promote employee growth and development.

Against this broad context of joint responsibility (higher education, labor, government and business) Alverno College chose to become involved in a Joint Venture with Alliance.

When Alliance requested proposals from the colleges and universities in the state of Wisconsin, Alverno's Career Development Office wrote a proposal for Adjusting To Transitions (ATT), which has two parts: RTL (Returning To Learning) course and MAP (Making Alternative Plans) one-on-one career counseling. Alliance chose Alverno's proposal and contracted them to work with the CWA and IBEW in career development. The main focus of the program is to help make realistic Career Action Plans (CAP) for transitions in the 21st century jobs.

PROGRAM

Adjusting To Transitions is a program dedicated to linking workers with educational services that help workers prepare for next century jobs. The two functions of teaching course work on-site and one-on-one career counseling are shown in this model. The classes are 2½ hour sessions and career counseling is a 1½ hour session.



Aware of the national reputation CAEL (Council for Adult and Experiential Learning) has in Joint Ventures, Alverno subcontracted CAEL to use its RTL course. Alverno already had regional acclaim for its Career Counseling model, MAP, so adapted MAP to the career needs of the AT&T workers.

The Career Action Plan is begun in the ATT classes and completed in one-on-one career counseling. Through completion of CAP the workers become eligible for funding to take re-training courses or to enroll in degree programs. The career counselor is a resource for finding a college or continuing education school of their choice.

EMPLOYEE INVOLVEMENT

Over the past year and including this year, Alverno's Career Counselors conducted twenty-one ATT workshops. Two-hundred forty-one AT&T workers have completed Career Planning workshops and of that group 78% have already met with individual career counselors.

Some of the ways the ATT program benefited employees are seen in outcomes that workers have told us. One male implemented an extensive networking and job search within the corporation. Within one month he had moved out of state to the job he intensely wanted. In fact, he traveled back to Milwaukee to finish his third session of career counseling to express his gratitude for the ATT assistance. A woman who had previously ineffectively tested to upgrade her job called Career Development right before the holidays. She said that after studying "Testing Techniques" she again went for testing. This time, through implementing what she had learned in class, she not only passed but came out in the top 10% and got the job.

Other success stories are: persons entered photography classes, a number enrolled in college for the first time, one finished an Education Major degree, several are taking art courses and one is enrolling in real estate classes.

Evaluation statements for the most part point to high satisfaction with Adjusting To Transitions.

"Got some great ideas and very helpful hints on studying, taking notes and tests."

"The class was very informative--has provided me the opportunity of exploring options open to me. I had been planning to do this on my own but was a bit hesistant. I appreciate the company luring me into this by offering it at no cost."

"This class is helping me to at least consider possibilities open to me."

"Brilliant insights to many things I wouldn't have considered."

"I enjoyed this class/program very much and have learned more than I had expected. Continuing education is more interesting to me now but it looks like a 'hard row to hoe'."

"This is a very helpful program--studying and memorizing are my worst, and this has helped me to take time to read thoroughly."

"I'm going back to school!"

"Excellent instructors, who made me feel I can do it. Learning to realize I have a brain that can be used to the best of my ability, if only I put everything in context."

"I have enjoyed this class very much. It is helping me to learn more about myself and other areas that I might expand in. Thank you!"

"I think it could have been covered in fewer sessions."

"I wasn't able to do all the homework assigned week by week. However, I am hoping to complete it as I have the time."

"My original concept of this class was only that I would be taught to change my attitude on my job. I had never considered school as an alternate to grow."

"The entire class was well put together and very informative. A very good job by the instructor and Alverno College on putting the program together."

"Especially enjoyed the one-on-one test; Judy related well to situatins of many and took into consideration not all were returning to college."

The problem areas Alverno addressed in implementing the ATT program were three:

1. The amount of administrative work exceeded expectations.
2. Getting communication to employees about the availability of ATT program was difficult.
3. Operators' schedules made scheduling classes or career counseling appointments quite a challenge.

SUMMARY

Alverno's Career Development counselors find working with CWA and IBEW workers an energizing experience. In the true sense of adult learning, teaching ATT workshops and doing career planning with workers is truly a teacher-learner transaction--learning occurs with both parties involved.

By assuming joint responsibility to deliver quality educational services to workers, the Alverno-Alliance partnership takes pride in its contribution to helping Build A Quality Workforce for the 21st Century.

ADULT LITERACY: AN ECONOMIC INTEREST

J. HUGH NICHOLS
DIRECTOR, ECONOMIC DEVELOPMENT
ENTERGY SERVICES, INC.

Abstract

Adult literacy is directly related to the economic vitality of a community. Survey data illustrates the impact of literacy on per capita income, and jobs/income growth in non-metro counties of 12 states. Middle South Electric System's pilot test of automated adult learning systems to increase literacy training productivity is presented as a case study.

Literacy: An Economic Interest. Why would a private sector employer invest in a public service program such as adult literacy? To some it may sound contradictory; but it really isn't. In the language of my company, it is like 'socially responsible, financially strong.' May I quote a brief paragraph from our 1988 Annual Report.

> "The Middle South Electric System is a proud sponsor of the region we serve. As the Company's vision states, we are as committed to being "socially responsible" as we are to being a "financially strong" competitor. Happily, we don't see the two goals as counteractive. As our region grows, so does its demand for electricity. As its economic indicators rise, so do ours. As the education of the work-force improves, so does that of our labor pool. As community opinion of our Company becomes more positive, so do our relationships with our regulators."

Entergy Corporation (formerly Middle South Utilities) is a holding company. It consists of both operating and support companies. I am going to name them because I suspect some of you are from the states in which they operate. The primary companies are: Arkansas Power & Light Company, Louisiana Power & Light Company/New Orleans Public Service, Mississippi Power & Light Company, Systems Energy Resources, and Entergy Services, Inc. Within a three state area plus south-eastern Missouri, those companies generate and deliver electricity to an area the size of many countries. The Middle South Electric System has an investment of over $14 billion in that area. The Middle South Electric System also directly employs over 10,000 employees. Those employees plus their immediate family members of about another 30,000 give the System one of the largest employer interests in the region. The System provides electricity to over 1.6 million accounts (perhaps 5-6 million persons) so we have a very significant customer/client interest in the region. The System purchased more than $396 million in supplies and services from individuals and businesses in the region in 1988 so we have an equally significant consumer interest in the Middle South Region.

In August 1986, Ed Lupberger, Chairman and President of Entergy Corporation, announced a series of educational and economic development programs. Those programs were called 'New Opportunities.'

The New Opportunities programs are inextricably linked to provide both the public service and the private economic interest objectives as they meet the goals of the System's vision statement to be "socially responsible" and "financially strong."

Today's topic is literacy. Therefore, I will limit my remarks to our experience in that area. Our New Opportunities' initiatives cover a broad range of economic development and education programs which I will be pleased to discuss at the end of this session if your interests range beyond our direct literacy initiatives.

The Middle South Electric System's literacy programs are different from most employer based literacy programs. That difference is primarily in terms of the expanded scope of the programs.

First, the Middle South Electric System has the same interest as any other employer in employees who have basic reading and writing skills. But because the Middle South Electric System is in the electric energy business, it is impacted differently. There has been an intensive screening of employees over the last several decades because of the nature of the employment and regulations imposed upon electricity generating plant personnel. In addition, the workforce of all electric energy companies has remained relatively stable, and in some cases it has declined, in the 1980s. This general situation is expected to continue.

But, secondly, the Middle South Electric System also has an expanded interest. That expanded interest is in its customers and its suppliers. But you say, "Aren't all businesses interested in their customers?" Of course they are!

"What's the difference?" The Middle South Electric System's customers are all located in a very specific and well defined geographic area. In the industry, this is called the 'service area.' The Middle South Electric System cannot sell electricity in New York, Chicago, San Francisco, London, Frankfurt, or Tokyo. Therefore, the Middle South Electric System has a much greater interest in the area it directly serves than most businesses; an interest that is closely akin to the interest of their government. If the residents of that area do not pros-per, then the Middle South Electric System does not prosper. If the people do not prosper, then the government does not receive increased revenues to pro-vide needed services. Of course, government can raise tax rates and electric energy companies can (with the approval of government bodies) increase electric rates. But neither of these is a desirable act. It is much better for us to help our customers to become more prosperous.

Early in 1986, Ed Lupberger initiated a survey of the citizens of the Middle South Region to determine what they believed was most important to them and their families in the years ahead. The answers came back jobs and education. We might have expected that answer, but the magnitude of the response was so overwhelming that the 'New Opportunities' program was immediately initiated.

I could cite and recite the literacy needs of our region, but this audience knows the need. There is no point in repeating the magnitude of the problem or the consequences of not solving it. I believe it will be helpful, however, if we look at the benefits of being more literate. Table I following shows the results from the non-metro (basically rural) counties of the south. The information in Table I is from a recent publication of the Southern Growth Policies Board (February 1989). The data covers 12 southern states ranging from Virginia to Oklahoma but there is no reason to believe that it is not accurate for any major geographic region within the south.

Let's quickly review the Table. As literacy rates increased from 60% (bottom line where more than 40% had less than 8 years of education) to 76% or more (top line where less than 24% had less than 8 years of education), the percent employment growth increased from 1.34% to 2.81% annually, the annual percent income growth increased from .83% to 4.29%, and the per capita income in 1985 ranged from $6,466 to $9,245. This is a very telling story.

Table II presents another interesting aspect of the correlation between economic growth and education. Although Table II addresses the percentage of the "trained, technical labor force" (TTLF), literacy must precede technical training. Table II illustrates that as the TTLF increases as a percentage of population, the percentage growth in services increases while the percentage growth in manufacturing decreases. It

TABLE I - The Benefits of Being Literate

Non-Metro Counties	Percent Adults 8 years or less education (1985)	Percent Employment Growth 1977-84	Percent Income Growth 1981-85	Per Capita Income 1985
83	24% or less	2.81	4.29	9,245
160	24-30%	2.17	3.00	8,122
272	30-36%	1.69	2.13	7,678
182	36-42%	1.32	1.84	7,141
118	over 40%	1.34	.83	6,466

NOTE: Table I and Table II are adaptations of information contained in Figure IV-1 and Table IV-4, respectively, from Making Connections, by Dr. Stuart A. Rosenfeld, et al, published by the Southern Growth Policies Board, February 1989. The non-Metro counties are in the States of Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, Oklahoma, Kentucky, and West Virginia.

TABLE II - Technical Education and Economic Growth

No. of Non-Metro Counties	%* TTLF** (1980)	% Empl. Growth 1977-84 Mfg	% Empl. Growth 1977-84 Svcs	% Income Growth 1981-85	Per Capita Income 1985	% with Coll/Univ 1985
46	<0.5	1.80	1.75	.64	6293	6.5
161	0.5-1	1.03	2.26	1.24	6838	10.6
251	1-1.5	.74	3.06	2.65	7623	12.4
177	1.5-2	.46	3.50	2.36	8032	16.4
114	2-3	.13	3.47	3.51	8403	21.1
48	>3	.22	3.61	3.97	9202	25.0

* By place of residence.
** TTLF is total technical labor force including scientists, engineers and technicians.

also shows that the percentage income growth and percentage per capita income increase very significantly. The number of counties with colleges or universities also increases; or, the number of colleges and universities were contributing factors to the increased presence of the TTLF in the various jurisdictions.

These tables simply affirm the Middle South Electric System's decision to expend corporate funds to improve literacy.

Project Literacy was the first program. Entergy Corporation sponsored the preparation of a series of radio and television public service announcements. These annoncements were directed to raising the level of literacy awareness. They sought to motivate those who needed literacy instruction to call for help and to motivate those capable of becoming literacy instructors to call and volunteer. The announcements were distributed to some 400 stations throughout the Middle South Region. And from November 1986 to the Spring of

1989, over 5,000 calls were received on the Regional Literacy Hotline (1-800-227-3424). The Middle South Electric System contracted for the operation of the hotline on a 24 hour basis. The operator transmits information concerning the calls to the Middle South Electric System electronically. Middle South Electric System's staff separates the calls by state and transmits them to the appro-priate agency to call the student or the volunteer and to follow up as appropriate.

It soon became evident that if adult literacy instruction was always relegated to one on one tutoring, we would never catch up. A search was begun to improve this situation. The objectives were:

1. To increase productivity in literacy instruction.
2. To stimulate community involvement--to create program ownership.
3. To illustrate institutional capacity--many different organizations and institutions need to deliver the instruction.
4. To provide a replicable model for others.

After a review of many automated learning laboratories, a system known as Principles of the Alphabet Literacy System (PALS) was selected. The selection of PALS was not intended to, in any way, reflect negatively on the many other systems that are generally available. The PALS laboratory was selected as being the best to meet the objectives we had set for ourselves in our particular environment. It consisted of a 16 station laboratory with IBM Personal Computers and a touch-sensitive display screen so that students could interact with a video instructional program without being able to read. Of course, as the students progressed, the communications would become more complex.

The standard course of instruction for a PALS laboratory consisted of one-hour per day, five days per week, for a twenty week period. This meant that a laboratory that could operate 8 one-hour classes per day could provide instruction to as many as 128 (8 times 16) students in each 20 week period. If six weeks were permitted for recruitment and evaluation for each cycle, that still left a potential for two complete cycles per year. Research has shown that a PALS laboratory could raise a student's grade level by 1 to 3 grades over the 100 hours of instruction.

We looked for business partners including the companies of our own System. We looked for community institutions including four year and two year colleges, public school systems and government agencies. We looked for different ways to demonstrate the effectiveness of more productive literacy instructional systems.

We determined that it would be wise for us to enter into long term (five year) agreements with a community institution for the operation of the laboratory in return for the equipment. Four such laboratories have been established to date:

1. Jackson, Mississippi

The first laboratory was established with Mississippi Power & Light Company as our partner for the equipping of the laboratory. Jackson State University became the community organization that agreed to operate the laboratory for a period of five years. The laboratory was installed in a business incubator off-campus but near the University.

Our goal for this, and future, laboratories was to have a minimum of 64 students enrolled at any time. This is equal to four one-hour classes of 16 students each. The normal course of instruction would run for 20 weeks on this basis. Further we sought to complete two cycles of instruction per year leaving the remaining 12 weeks for recruitment and evaluation activities.

For the initial period at Jackson State University, there were 116 students. Some students showed grade level advancements as high as 4.6. The average grade level advancement was 1.9.

Jackson State University began an aggressive program to convince employers to encourage their employees to attend and to give them some release time as an incentive. More than 20 employers participated in the program.

2. Helena, Arkansas

Another laboratory was installed at Phillips County Community College in Helena, Arkansas. The Community College was our community partner and Arkansas Power & Light Company was our business partner. The Phillips County area is a basically rural area. The employers are generally smaller in size than those in an urban area. The distance that most students had to travel to the laboratory was greater. There were 116 students in the entire

first year, slightly below the goal of 128. There were fewer completions and there were more transportation problems.

3. Monroe, Louisiana

The Monroe City Public School System became the community partner along with Louisiana Power & Light Company as the business partner for the installation and operation of this laboratory. There were over 150 students for the first year. There were some young adults in this group; some were young enough and came into the system soon enough to encourage them to stay in school. Still, there has been some difficulty in maintaining adult enrollment and motivation. The local Chamber of Commerce has created a special committee to assist the Public School System in meeting its enrollment and operating goals.

4. New Orleans, Louisiana

In this urban environment, New Orleans Public Service Inc. became the business partner and the Office of the Criminal Sheriff became the community partner. The Sheriff's immediate goal was to provide literacy training to short-term prisoners in an effort to release more employable persons and to reduce recidivism. One prisoner who was unable to complete the program before his release wanted to know if he could come back to finish after he left jail. Of course, he could do this because the laboratory was available to the community after the normal work-day in the prison. The laboratory was installed in the administration area so that it was easily available to both types of students at different times.

How do we evaluate the laborator ies? Were they successful? All labora tories were successful in one way or another. They either achieved the goal or taught us things we needed to do differently.

It is very important to have a sustainable source of students. We know there are persons out there who need help but getting them to attend is sometimes difficult. Employer participation is a highly successful way to achieve student participation and Jackson, Mississippi is a good example of this. A captive audience always works and the New Orleans's Office of the Criminal Sheriff certainly demonstrated this. Proximity to a large public school where a young adult clientele can also be included is another way to sustain enrollment as demonstrated at Monroe City Public Schools. The installation at Helena, Arkansas taught us that an extensive transportation system is needed in a rural environment or that a 16 station laboratory is too large.

So it works. Up to 16 times as many adults can receive effective liter-acy instruction per instructor via the PALS laboratories. Other businesses and school systems are beginning to use automated literacy training systems although although they are not necessarily using the PALS laboratories.

What is really the bottom line? What's the difference between a person earning a living even if it is near the minimum wage level and a person on public welfare? The result is different in different communities but it is always positive. The person benefits from increased dignity and the ability to provide a higher standard of living for himself/herself and his/her family. The community benefits from the increased economic vitality of its residents. The government benefits from decreased public expenditures and, perhaps, from increased revenues.

What's in it for the Middle South Electric System or for any other electric or utility system for that matter? Let's just take a hypothetical situation. The four laboratories that Middle South installed cost our System $300,000 plus support costs. Let's assume that they produce 500 graduates (about 80% of capacity) in a year for a total of 2500 graduates over the 5 year agreement. Suppose, as a result, these graduates and their families are able and desirous of an increased standard of living and they increase consumption of our product by, lets say, $10.00 a month; that is $25,000 a month beginning in year 6 or $300,000 a year. If they do this for a 20 year working life, that is a total of $6,000,000. What a benefit! Of course, a much greater benefit accrues to the community because of the increased economic vitality resulting from the everyday expenditures made by a gainfully, or more productively, employed person.

Adult Literacy: An Economic Interest! Yes. And public benefit as well! Private dollars that are spent to teach adults to read and write are good investments from any perspective.

Anita Stowell
Nina S. Feldman, Ph.D.
Wendy A. Heil
American Association of Retired Persons

WORK OPTIONS IN THE FUTURE

Anita Stowell
American Association of Retired Persons

In 1987, AARP established the New Roles in Society Program (NRS). A principal objective of the program is to look toward the future and to speculate about what programs, policies, or changes should be undertaken to assure that Americans, regardless of their age, can live safe, productive, and fulfilling lives. NRS does not subscribe to a single vision of the future, but rather a set of visions, or scenarios, designed to promote discussions of alternative futures. Work and education issues have been the focal points of our recent studies.

When viewing the future, we can predict the effects of certain forces with some certainty. Evolving demographic patterns have important implications for the size and composition of the labor force. The baby boom cohort has focused employment policy on youth employment and training issues. The aging of this cohort, plus its lower fertility rates, will result in a dramatic reduction in the proportion of younger workers in future years. Immigration will add to labor force size, and many immigrants will have low level skills and low level literacy. Further, it is likely that the greatest increase in female labor force participation rates has already taken place.

There are also numerous factors that will affect our nation's labor force that we cannot predict. These forces do not operate in isolation; they are part of a complex matrix of forces, only some of which can be controlled. In a rapidly changing global economy, it is difficult to predict what changes will occur, when they will occur, and the intensity of their influence on the labor market. Some of these forces can be altered by our actions, but many, like the deterioration of the infrastructure and the availability of energy resources, cannot be regulated. The labor force will evolve under the influence of both known and unknown factors.

According to the Department of Labor, 21 million jobs will be created between 1986 and 2000. By 2000, three out of four jobs will be in the service-producing industries. Service and retail trade jobs together will account for more than 75 percent of the growth in jobs. Services will grow by 50 percent, and retail jobs will grow by 27 percent.

Other Bureau of Labor Statistics projections indicate that the industries with the largest number of new jobs will include the business services, medical services, construction, financial, and computer industries. Many of the new jobs in these industries will not be particularly high-tech, or require unique skills or long training periods. These jobs will be common but challenging, and will be appealing to workers of all ages.

Indeed, research indicates that a sizable proportion of older people retain an interest in work. It also reveals a large and growing interest among older people in part-time employment, in jobs that are different from those held during the early and middle years.

In 1988, NRS conducted a national survey to learn how adults view work and training. Several interesting findings surfaced:

- There was a strong interest among adults of all ages in learning new job skills.
- Younger workers were more likely than older workers to indicate that they would be interested in changing careers.
- The interest in self-employment was high among all respondents.
- Regardless of age, workers want flexibility. More than 50 percent of those surveyed indicated that they would like to work out of their homes.
- Most workers would like to stay in the same job until they retire.

In sum, mid-life and older workers in the future will have a variety of employment opportunities. It is likely that employers will actively recruit mid-life and older workers as the availability of "new" labor--young and female workers--declines.

The more salient question is whether mid-life and older workers will want to work. According to the NRS survey, workers will continue to value retirement options as well as work options. Perhaps employers will have to consider alternative work styles in an effort to entice these workers to continue to work, at least on a part-time basis.

* * * * *

TECHNOLOGY AND REACTIONS TO CHANGE

Nina S. Feldman, Ph.D.
American Association of Retired Persons

How do people feel about new technology, its benefits and drawbacks? Its impact on the work place? About their own need to be trained and retrained across a lifetime of work place changes?

In June 1989, New Roles in Society conducted a series of focus groups to find out how people react to "new technology." Younger and older adults (ages 25 to 75+), men and women, lower and higher SES groups, people of different races and in different locations across the country (Detroit, Boston, Cedar Rapids and Philadelphia) described their attitudes towards technology and towards training in new technologies.

In describing technology, many people mentioned "scientific discoveries," "progress" and "gadgets." Electronics and new products (e.g., computers, VCRs) were often mentioned.

Technology's benefits were its ability to make life easier and more comfortable, to speed up service and to save time. But overall, drawbacks (e.g., putting people out of work, making products too difficult to use, harming the environment) predominated. Older adults, especially, felt nervous about depending on new technologies whose malfunction could "hold people hostage." And, technology's role in speeding up the pace of the world was also seen as a drawback.

Interestingly, our focus groups revealed indications of a "techno-gap" pattern suggesting mid-life adults are most strongly affected by a fear of being left behind by technology in the work place.

Children were seen as "growing up with computers" and using computers "like toys;" older adults were seen as less subject to the requirements of techno-literacy, while many mid-life adults said their work increasingly demanded computer skills and that they felt anxious about their own ability to keep up.

A recent study by Sharan Merriam (1987) of adults' experiences with retraining after job loss also supports this life cycle interpretation--that mid-life workers may be most fearful and vulnerable when it comes to retraining. Providing support services or pre-training workshops that address life cycle and emotional issues may be critical in helping mid-life adult learners face new technological training with receptivity and equanimity.

Not surprisingly, our focus groups revealed that having a good teacher was a vital part of successful training.

Although participants liked the idea of using educational technology (e.g., audiotapes, video cassettes, computer-aided instruction), they kept coming back to their need for a <u>human being</u>, a teacher who can understand students' specific needs, reassure them, and answer questions. In essence, participants were reminding us of the critical balance between "High Tech" and "High Touch."

New work place technology may have positive and negative implications for older workers. In many cases, technology can <u>improve</u> employment opportunities by reducing physical demands, removing geographic requirements (e.g., allowing "tele-commuting" from home to office), and by changing the environment to compensate for possible decrements in older persons' hearing or vision; and providing opportunities for part-time work, a common preference among older workers.

But, there's also a down-side, as new technology contributes to skill obsolescence, tends to increase the kinds of information processing demands at which older persons do not excel, and may, if not appropriately designed, exacerbate existing physical problems.

Overall, knowledge about the impact of technology on an aging work force is limited. There are many important questions that need to be answered. It

appears, however, that if technology is carefully designed and used properly, it can improve the work life of older people.

Back in 1981, AARP found, in a national survey of people age 45 and over, that 50% of all respondents felt new technologies were making life more difficult rather than easier. More recently, in a 1988 nationwide survey of persons over age 25, we found that two-thirds of all respondents age 25-49 years, half of those 50-65 years, and more than a quarter of those 65-74 years believe that new technologies will change skill requirements on their jobs. Workers of all ages are concerned about keeping pace with technology, yet once again, mid-life workers seem to anticipate, and perhaps fear, this impact the most.

Across all ages, education was seen as the most useful response to this changing work place, and looking towards the future, almost 60 percent of adults familiar with a trend towards continuing education expect to have further job-related education or retraining in coming years, that is, almost four-fifths of those 25-49 years old, almost half of those 50-64 years old, and 15% of those 65-74 years old anticipate more training in their future.

In sum, the benefits and drawbacks of new technologies are apparent to everyday observers, younger, mid-life and older adults alike, many of whom anticipate the need to receive more training to address work-related changes.

* * * * *

TRAINING AND RETRAINING OLDER WORKERS: MODEL PROGRAMS THAT WORK

Wendy A. Heil
American Association of Retired Persons

Today and in the future, American business faces an increasingly competitive world economy. Companies and government must maintain a skilled and productive work force, performing at top levels. This can only be achieved through constant training and skills renewal.

The need to understand and use new technologies and information has forced business and industry to examine programs to enhance their human resources. In the past, some firms managed their employees according to a depreciation model of human capital. An individual was most valuable to the organization early in his career and was perceived as less useful at later career stages. However, in recent years, many employers have acknowledged the value of their older, experienced workers.

General Electric's Aerospace Electronic Systems Department believes in retraining its mid-life and older workers. In 1977, G.E. initiated a Technical Renewal Program for its engineers whose skills had been outdated by new developments in the electronics field. Of the 235 engineers who participated in the program over a three-year period, more than 70 percent were placed in challenging, new assignments. About half of the engineers aged 50 and over who participated in the program have continued to take follow-up courses voluntarily. Older employees are encouraged to teach courses and work closely with younger engineers to insure that their skills and knowledge are not lost as they retire.

Cross-training allows employees to explore alternative career paths and assume new roles within their firm. Managers at Control Data Corporation believe that in many instances it is preferable to retrain long-time workers for new jobs than to recruit and train replacements. Since 1980, CDC has offered a three-day cross-training workshop to professional employees age 30 to 55. The workshop encourages employees to consider their job options within the firm rather than leave CDC to pursue a second career.

Crouse-Hinds ECM, a New York electrical product manufacturer, is concerned about its employees' welfare both while they are employed and after they have retired. In addition to an effective cross-training program, Crouse-Hinds offers a Tuition Assistance Program for employees nearing retirement. The program allows older workers to investigate part-time or second career options as they prepare to retire.

The McDonald's Corporation discovered that many older people were interested in part-time work, and that skills they had acquired over a lifetime could be put to use in its restaurants. In 1986, McDonald's created its McMasters Program to provide training and job placement for people age 55 and over. Usually co-sponsored by a government agency such as a State Office of Aging, the McMasters Program is now in place in seven states and the District of Columbia.

Government programs, at both the federal and local levels, also provide older

workers with training and help integrate them into the work force. Administered by the U.S. Department of Labor, the Job Training Partnership Act (JTPA) and the Senior Community Service Employment Program (SCSEP) are designed to help older persons with limited incomes find meaningful employment. Joint ventures by business and government, in the form of Private Industry Councils (PICs), also offer job training to older workers who seek new employment opportunities.

Looking into the future, it is probable that government, business, and industry will continue to view training as a valuable and necessary investment in human capital. Companies will no doubt place an even heavier emphasis on retraining and cross-training workers in a work force that is becoming older.

Some employers have already demonstrated their willingness to use older workers and retirees as trainers and mentors. Apprenticeship programs also afford new employees the opportunity to learn the business under the guidance of older workers or retirees.

New technologies will enter the training room as well as the assembly line. Self-paced instruction using audio and video tapes and computers will become a popular method of delivering information to employees. Tele-conferences will provide employees with an opportunity to tap into the knowledge and expertise of long-time workers and retirees. Informal discussions in the lunchroom or with a short videotape will promote constant learning and growth on the job, even in mini-segments.

The traditional view of education as formal learning in childhood has been replaced by a view of education as a lifelong process. This lifelong learning is making its way into the work place. In a future work force made up of many mid-life and older employees, training and retraining presents government, private industry, and individuals with exciting challenges and options.

The firms mentioned above are listed in the National Older Workers Information System (NOWIS). NOWIS is a computerized database of information on more than 100 older worker employment programs currently operating in the private sector nationwide. NOWIS was originally developed by the University of Michigan's Institute of Gerontology and is now maintained by AARP. The database is available as a resource to employers interested in exploring innovative ways to utilize the skills and experience of older workers.

AMPLIFY PEOPLE PERFORMANCE WITH EXPERT SYSTEMS

by Paul Siegel

ABSTRACT

To build a quality workforce, we may enhance the capabilities of the less sophisticated in the workforce by concentrating on either a huge training program or a performance-improvement program requiring much less training. This paper recommends the second approach. We can build a quality workforce with a network of small expert systems, developed by the technically-sophisticated half of the workforce for the performance amplification of the less-sophisticated half. The latter will need a limited amount of training in interacting with a computer and following instructions.

IT BEGAN IN ROMAN TIMES

It began in Roman times with the introduction of many gods. Jupiter, Juno and Janus are some of the gods we are familiar with. Jupiter was the supreme god, Juno was the sister and wife of Jupiter, and Janus was the keeper of the gates. He had 2 heads and we name January after him.

But it isn't commonly known that Janus had a sister too. She, like her brother, had 2 heads. She, like her brother, was keeper of the gates - not physical gates, but intellectual gates. Her name was Bicerebral Jana - or as I like to call her, Brainy Janey.

Brainy Janey (Fig. 1) used her left head to store know-how, her right head to reason with this know-how and a horn to advise the world.

Fig. 1. Brainy Jancy

She used her intellectual horn of plenty to gather chunks of knowledge, such as "a stitch in time saves nine," and "an apple a day keeps the doctor away", and stored them in her left head for ready retrieval.

When she encountered the facts of a problem, it would cause the reasoning mechanism in her right brain to go round and round. During each rotation it would swoosh a knowledge chunk into its orbit and see if it applied to the facts. After several rotations, it would find a knowledge chunk that applied and it would use it to form an inference - a new fact. It would continue its rotation and chunk-swooshing with reference to the facts to produce further inferences. After many inferences executed by the reasoning mechanism, Brainy Janey reached a conclusion, which she announced through her horn.

Brainy Janey, back then, during the Roman Empire, proclaimed:

> "Build likenesses of me. Gather knowledge from those who know and bring it to those who need to know."

Brainy Janey demonstrated a way to build people performance amplifiers as a method for developing a quality workforce, in order to achieve the Learning Society.

PEOPLE PERFORMANCE AMPLIFIERS

Physical Performance

At first, Brainy Janey was disregarded. The artifacts that were built were built to improve the physical performance of people. The progression of transportation inventions across time from then to now is shown clearly by the following sequence:

Chariot - Cart - Car - Train - Plane - Missile - Satellite

The power to drive these transportation systems and also to drive the millions of gadgets which make our physical life as part of the industrial revolution easier can be expressed by another sequence:

Fire - Animal - Electrical - Chemical - Nuclear

Intellectual Performance

Inventions for improving the intellectual performance of people came later. First people tried to build likenesses of Brainy Janey's left head, the one concerned with storage of know-how. The progression of storage and communication inventions may be shown by the following sequence:

Pencil - Pen - Printer - Copier - Audio Cassette - TV - Video

Later people tried to build likenesses of Brainy Jany's right head, but, up until very recently, succeeded only in inventing methods for calculation, not reasoning. These calculation inventions may be summarized by the following sequence:

Pebbles - Beans - Beads - Abacus - Adding Machine - Calculator

Computer

During the 1940's and 1950's, man's greatest intellectual tool, the computer, was developed. The computer is different from other previous inventions. It has what is called a *stored program*. Let's compare it to a calcualtor. To solve a problem with a calculator, you enter data, execute an addition or a multiplication, store imtermediate results, enter more data, choose other mathematical functions, and so on. You are part of the problem-solving process. You must repeat the procedure every time you solve a problem. With a computer, you compose a list of instructions representing the sequence of operations you want the computer to execute, store it in the computer and it will execute the entire sequence all by itself. Once developed, the same program can be used over and over and over for different inputs of data.

BEST COPY AVAILABLE

Early computers were huge, expensive and usable only be an elite few. Since then computers have become small - rest on your desk, on your lap, on the palm of your hand. They have become cheap - they have come down from the million dollar range to the thousand dollar range and are entering the hundred dollar range. They are usable by everyone: just buy a software package and follow the instructions for using it. The small personal computer is providing the power for launching an intellectual revolution which will dwarf the industrial revolution.

Advisors, Guides and Assistants

Until about a decade ago, the computer was used for a whole array of tasks involving storage, communication and calculation - but not reasoning. But then, a people-performance amplifier par excellence was developed, one that could reason. It has been given the intimidating name of expert system. In reality it is a means of disseminating practical problem-solving know-how. Thus it may be used as an advisor, a guide or an assistant to people in the organization (Fig. 2).

Knowledge Manufacturing Economy

Because there has been a great increase of services lately, most prognosticators forecast a services economy for the 21st Century. However, the advent of knowledge modules changes things. What is a service now can easily become a product tomorrow. Today, if something is wrong with the car, you go to a mechanic, who fixes it. This is a service. In the future, you may go to the store, buy a diskette - a knowledge module - insert it into your computer and it will tell you what to do. This will be a product. Today if you have a financial problem, you go to a financial planner who advises you what to do. He provides a service. In the future if you had a financial problem you would go to the store, buy a knowledge module, insert it into your computer and it will tell you what to do. This will be a product. Today if you have a legal problem, you go to an attorney who advises you. He offers a service. Tomorrow, you would go to the store, buy a knowledge module, insert it in your computer and it will advise you. This will be a product. We will have a knowledge manufacturing economy.

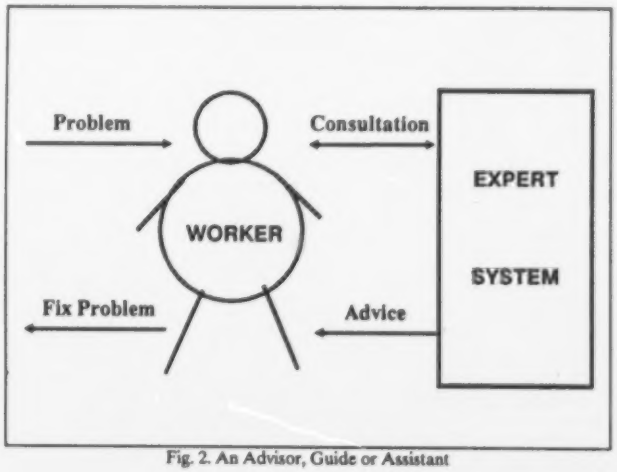


Fig. 2. An Advisor, Guide or Assistant

THE LEARNING SOCIETY

The intellectual revolution launched by the personal computer received a gigantic push by the advisors, guides and assistants built with expert system technology. The proliferation of these knowledge modules, as I like to call them, are leading us toward the Learning Society. The Learning Society, which will probably be in full flower at the beginning of the 21st Century, will be radically different from today's society[1].

Intellectual Work

Because knowledge will be a commodity that can be bought and sold, most work will consist of designing, building, selling, buying, using, fixing and learning about knowledge modules. Some of these modules will be used to provide intelligence to robots. But many more will be used to help people use sophisticated equipment and in their many intellectual tasks. The result is that people will be working at a higher intellectual level. They will be members of almost-autonomous teams.

Small Companies

Because knowledge will be a commodity that can be bought and sold, anyone will be in a position to establish a small business and to compete with the biggest corporations. The small business will have the advantage of fast reaction time. Even within the larger corporations, many small fairly independent units will be the rule; headquarters will act more as a bank.

Learning In Vogue

The major outputs of our economy will be knowledge modules, which means that the major activities of people will revolve around knowledge. You can see how it works today. Your major activities revolve around physical products, and you spend a tremendous amount of time dealing with these physical products. Just think of the ubiquitous automobile. In the future, you will need to know about the different types of knowledge modules and how to use them to solve problems, just as today you need to know about the many types of automobiles and how to use them for business and pleasure. Learning will be in vogue.

People Will Be Creative

Because the knowledge modules will take care of most of the rational reasoning, most of the left brain work, people will use their intuition, their right brains, more. They will learn to synthesize solutions to broad problems. They will be more creative.

PREPARING THE WORKFORCE

Every forecaster, regardless of what he sees in the future, sees the need for a workforce with greatly enhanced knowledge, capabilities and skills. There are 2 general ways of achieving this goal: intensive training or performance amplification.

Intensive Training

ASTD (American Society for Training and Development) is the major proponent of the intensive training approach. In a document ASTD wrote in cooperation with the U.S. Department of Labor[2], it states that

> "...the more educated and trained half of the American workforce competes well with the white-collar and technical elites of its economic rivals. But the other half of the workforce is not as well prepared, and this is where the U.S. is losing the competitive race."

To improve our competitive position in the world economy, the document recommends a big intensive training program for the development of the following skills in the bottom-half of the workforce:

- LEARNING TO LEARN - Since conditions will be changing all the time, a worker will constantly need to learn new skills and knowledge
- THE 3 R'S - A worker will need to know how to read, write and calculate
- COMMUNICATION - A worker will need to be good at listening as well as in oral communication
- ADAPTABILITY - This heading includes problem solving and creative thinking
- PERSONAL MANAGEMENT - Included in this category are many things relating to personal effectiveness, such as self-esteem, goal setting and motivation, and career development
- GROUP EFFECTIVENESS - A worker will need to be effective in a group setting too. He will need interpersonal and negotiation skills
- INFLUENCE - The worker will need an ability to influence the organization and exercise leadership

Performance Amplification

How many people in the bottom-half of the workforce could learn all these skills, assuming we had the time to teach them? We have many people in the so-called well-prepared top-half of the workforce who do not have all these skills. What should we expect from the bottom half?

And supposing all these people could absorb all this material, how long would the training take and how many trainers would we need?

Fortunately, there is a better solution: having people in the top-half develop knowledge modules to amplify the performance of people in the

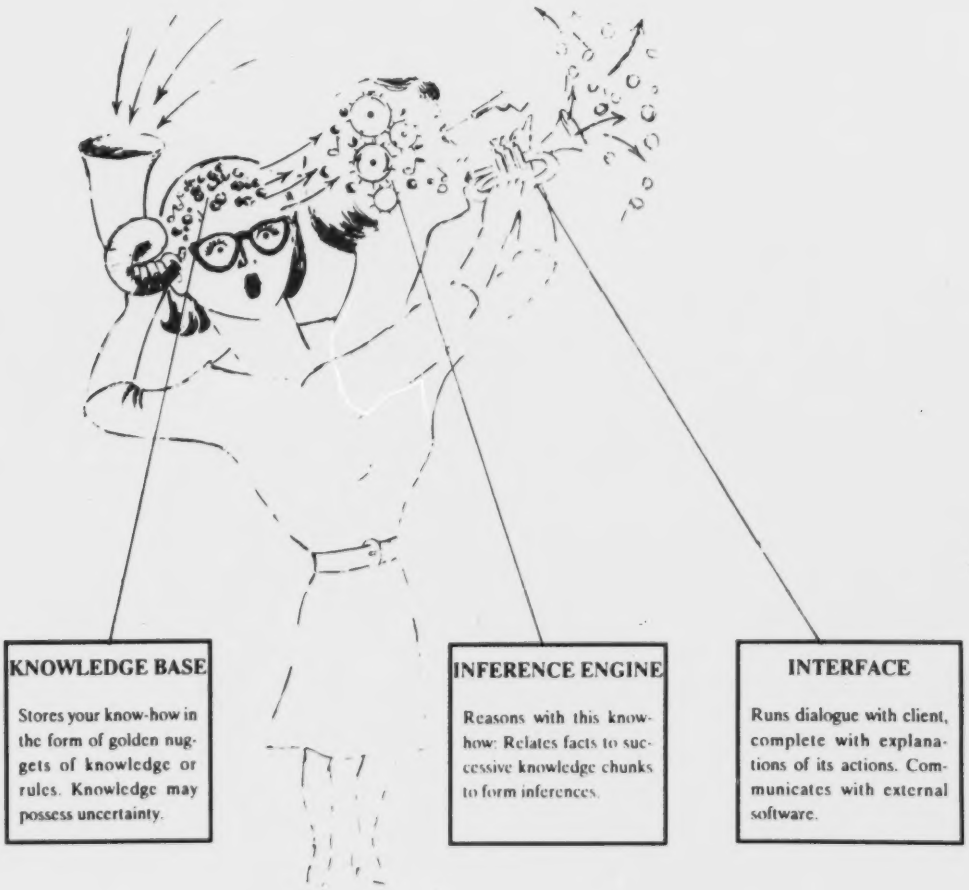

KNOWLEDGE BASE
Stores your know-how in the form of golden nuggets of knowledge or rules. Knowledge may possess uncertainty.
INFERENCE ENGINE
Reasons with this know-how: Relates facts to successive knowledge chunks to form inferences.
INTERFACE
Runs dialogue with client, complete with explanations of its actions. Communicates with external software.

Fig.3. Expert System - Computerized Likeness of Brainy Jancy

BEST COPY AVAILABLE

bottom-half. This approach produces rewards in both halves of the workforce. A person in the top-half, once he builds the knowledge module, is not pestered with simple-minded (to him) questions and is free to work more creatively. A person in the bottom-half has answers to his problems whenever they occur.

EXPERT SYSTEMS

The expert system, which is a major factor driving the Learning Society, may be a major factor in amplifying people performance. The expert system can be both cause and cure.

Description

The purpose of an expert system is to make the problem-solving know-how of a knowledgeable person (not necessarily an expert) available for use by others. It may be contrasted with a book. You may spend a week or a month reading a book from cover to cover; you gain an understanding of the subject domain, but you may not find the solution to your problem. With an expert system, you spend a few minutes interacting with it, after which it gives you, not an in-depth understanding, but the solution to your specific problem.

What follows is a concise description of expert systems. To obtain a greater understanding of expert systems, their applications and how a non-programmer may build one, see the literature[3, 4, 5].

The expert system is a computerized version of Brainy Janey. It has 3 major components, as follows (Fig. 3):

- KNOWLEDGE BASE - This is the problem-solving know-how, stored as chunks of knowledge, ready for retrieval. It is Brainy Janey's left head.
- INFERENCE ENGINE - This component takes the facts entered by the user and uses them together with the knowledge chunks of the knowledge base to draw inferences in order to reach conclusions. It is Brainy Janey's right head.
- CONSULTING INTERFACE - This is the bridge between the internal system and the user. It gathers the facts from the user and brings them to the Inference Engine. It dips into the Knowledge Base and into the Inference Engine to bring the user explanations of the proceedings and advice. It is Brainy Janey's horn.

Different systems represent the knowledge in their Knowledge Bases in different ways. But, by far, the most popular method of knowledge representation is the IF....THEN rule, which states that IF certain conditions are true, THEN a given conclusion follows. Simple examples are given in Fig. 4.

The Inference Engine may reason with such rules in 2 directions: forward and backward. Forward reasoning (usually called forward chaining) means reasoning from facts to conclusions. Backward reasoning (usually called backward chaining) means reasoning from conclusions to facts. In the latter situation, the conclusions are really hypotheses and the system searches for facts to support them.

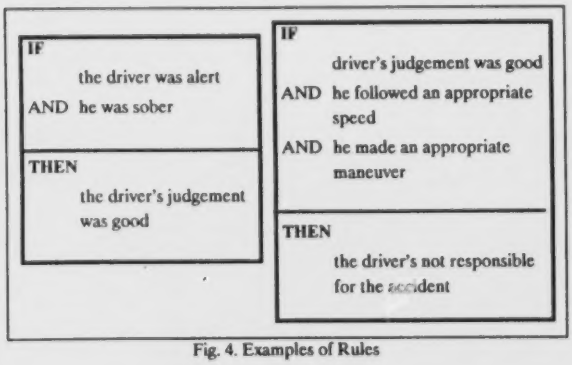


Fig. 4. Examples of Rules

Examples of Expert Systems

To help you gain a better understanding of what expert systems can do, Table 2 presents a small sample of practical expert systems that have been developed to date.

Expert-System Tools

An expert-system tool is an expert system with additional capabilities for helping you build a knowledge base storing your know-how. In addition to the chunks of knowledge, you need to enter into this Knowledge Base questions and explanations, which the system will incorporate into the dialogue between itself and the final user. Once built, many copies of an expert system may be made. A few of the many expert-system tools designed for the use of non-programmers are presented in Table 3.

Table 2. A Few Practical Expert Systems

System	Tool	Company/Function
Expert Probe	KEE	Unisys Aids in quality control
Hotline Helper	Pers. Consult. +	Texas Instruments Advises on printer faults
Weld Selector	Pers. Consult. +	American Welding Institute Chooses proper electrode
Hazardous Chemical Advisor	1st Class	Air Products & Chemicals Advises handling of hazardous chemicals
Rotating Equipt. Diagnoser	Exsys	Stone & Webster Engineering Diagnoses vibrations in rotating machinery
"Cooker" Adviser	Pers. Consult. +	Campbell Soups Diagnoses faults in soup "cooking"

Table 3. Simple Expert-System Tools

CRYSTAL	Intelligent Environments, Inc P.O. Box 388, Chelmsford, MA 01824
EXSYS	EXSYS, Inc. P.O. Box 75158, Contr. Sta 14, Albuquerque, NM 87194
Instant Expert	Human Intellect Systems 1670 S. Amphlett Blvd, Ste 326, San Mateo, CA 94402
MacSMARTS	Cognition Technology Corp. 55 Wheeler St, Cambridge, MA 02138
PC EASY	Texas Instruments Co. 12501 Research Blvd, MS 2223, Austin, TX 78769
SOCRATES	CIM Solutions 2696 N. University Ave, Ste 280, Provo, UT 84604
VP EXPERT	Paperback Software International 2830 Ninth St., Berkeley, CA 94710
1ST CLASS	1st Class Expert Systems Co. 286 Boston Post Road, Wayland, MA 01778

MINIMUM TRAINING REQUIREMENTS

The use of expert systems is not a panacea. We still need to train the workforce, both the bottom-half and the top-half, but not as much as with the intensive training approach. The minimum training requirements revolve around the use of the computer. These requirements may be summarized with 3 I's, which take the place of the 3 R's, as follows (see Table 4):

- INTERACTING. . . instead of READING
- IMPLANTING. . . . instead of 'RITING
- INNOVATING. . . instead of 'RITHMETIC

Interacting: The Basic Skill

This skill, the ability to communicate back and forth with the computer, must be learned by all in the workforce. Specifically, it involves 3 capabilities, as follows:

- EXTRACTING KNOWLEDGE - To obtain knowledge from the computer, the worker will need to understand the functions of the hardware (keyboard, monitor, printer) and have at least a "traffic-flow" appreciation of the software (what happens when). He will also need to be able to read, though the level of reading may be decreased through judicious use of graphics and speech systems.
- FOLLOWING INSTRUCTIONS - The worker will need to be able to follow computer instructions on such things as reading meters, measuring values, observing conditions and making corrections.
- ENTERING DATA - He will need to know how to enter data, both by word and number, and also graphically.

Table 4. The 3 I's

INTERACTING	Communicating with and learning from the computer
IMPLANTING	Building and storing knowledge modules into the computer to help others
INNOVATING	Producing innovative solutions with the aid of knowledge modules

Implanting

Implanting is a skill to be learned by the top-half of the workforce. Essentially what the people in this group need to learn is how to enter their know-how into the computer in such a way that it becomes easily available to the bottom-half people when needed. Up to recently, this implanting was done mainly via filing and data base management systems. In the future they will need to be able to build knowledge modules using expert systems and other technology.

Innovating

This is the skill of using knowledge modules to solve broad problems, to come up with new approaches to improve quality and productivity, to visualized new modes of operation. This is a high level skill and it is the kind of skill that will need to be learned by managers, executives and leaders.

REFERENCES

1. *The Learning Society*, by Paul Siegel, Expert-Systems Workshops, 3461 Marna Ave, Long Beach, CA 90808, 1989
2. *Workplace Basics: The Skills Employers Want*,The American Society for Training & Development and the U.S. Department of Labor, Employment & Training Administration, 1988
3. *Expert Systems: A Non-Programmer's Guide to Development and Applications*, by Paul Siegel, TAB Books, Blue Ridge Summit, PA., 1986
4. *Expert Systems: Artificial Intelligence in Business*, Paul Harmon and David King, John Wiley, 1985
5. *The Rise of the Expert Company*, Edward Feigenbaum, P. & Nii Mc-Corduck and H. Penny, Times Books, 1988

PAUL SIEGEL

is an author and professional speaker on the future *Learning Society*. He may be reached at 3461 Marna Avenue, Long Beach, CA 90808, (213) 598-6757

ARTIFICIAL INTELLIGENCE AND HUMAN PERFORMANCE TECHNOLOGY: ENHANCING THE WORKFORCE

KIM E. RUYLE
DEPARTMENT OF INDUSTRIAL STUDIES
UNIVERSITY OF WISCONSIN-PLATTEVILLE

ABSTRACT

Human performance technology is an emerging science that develops methods for improving human performance. Practitioners of human performance technology, performance technologists, only apply a performance improvement intervention after careful study of performers and the performance task. Interventions implemented are those that will indeed mediate the performance problem, will produce a meaningful return on the resources invested, and will be viewed as beneficial and practical by both the performer and the organization. Examples of performance improvement interventions include, feedback and reinforcement systems, personnel selection methods, organization development, job redesign, and job aids. This paper describes some of these methods briefly, explaining in greater detail the development and application of conventional and intelligent job aids. Contrasted to conventional job aids, electronic job aids are electronic rather than paper, focus on decision-making rather than supplementing memory, are more system-directed than user-directed, and often accommodate probabilities, possibilities, and complex judgments instead of only dealing with simple facts and binary decisions. These intelligent job aids, expert systems as they are called, are an outgrowth of the field of artificial intelligence. The development of expert systems is briefly explained and practical guidelines for application are provided.

Introduction

Once I had occasion to work with a manager who was fond of quoting Henry Ford II. "All costs walk on two legs," he would claim with vigor. The result of this manager's belief was not a relentless pursuit of avenues to reduce numbers of workers. Rather, this manager viewed all problems, including cost problems, as opportunities. Resources that "walked on two legs" were viewed as walking opportunities, vital resources which, if improved, would contribute more than anything to the success of the organization.

Such insight, it seems, is not widely shared by other managers in business and industry today. Instead of investing in and seeking ways to improve the resources that "walk on two legs," many managers are more willing to invest in inanimate hardware and software in an attempt to improve organizational performance.

It is true that capital equipment can be used to improve efficiency, product quality, and even customer service. But it is not uncommon for two-thirds of the cost of a manufactured product to be incurred by indirect labor and materials, factory overhead, and administrative expenses. In other words, costs that are fundamentally related to people -- the costs of marketing and advertising, selling and distributing, administering and managing, etc. -- contribute more to the cost of many manufactured products than raw materials and labor used to transform that material.

It isn't so difficult then to understand that improvements in capital equipment, even in manufacturing businesses where they have the most impact, have a limited contribution to the success of an enterprise. Almost always, by far the greatest opportunities for improving organizational effectiveness are those related to improving human performance.

The astute business person knows, however, that it is not prudent to indiscriminately invest in human resources for investment's sake. Investments of money, time, and energy must be effective so there are corresponding increases in the **accomplishments** of the performers.

The need to effectively improve the accomplishments of human performers has given rise to a discipline called human performance technology (HPT); those professionals who practice HPT are sometimes called performance technologists.

Human Performance Technology

Many professionals engaged in training and development (T&D) will readily see the value of expanding their vision and trade to include HPT. While the primary mission of the two disciplines is the same -- improving human performance, HPT has a more extensive repertoire than T&D. HPT thus constrains trainers to acquire new skills and assume new organizational responsibilities.

Training can be defined as a performance improvement intervention that is "directed solely at furnishing knowledge or skill that individuals need to carry out present work duties efficiently and effectively" (Sredl & Rothwell, 1987, p. 390). Training is the prominent intervention of choice by T&D professionals, but training only improves human performance when there is a lack of knowledge or skills. Other possible reasons for poor human performance include a lack of clear directions about what to do, a lack of motivation to perform, and inability to perform because of physical or other limitations (Mager & Pipe, 1984; Daniels & Rosen, 1982).

HPT is more comprehensive than T&D in that it addresses all the above reasons for less than optimum human performance by systematically applying several interventions in addition to training. These interventions include feedback and reinforcement systems, personnel selection methods, organization development (OD), job redesign, and job aids (Stolovitch, 1982; National Society for Performance and Instruction, 1986).

At the risk of gross oversimplification, let's consider an abbreviated (ruthlessly abbreviated) hypothetical case to illustrate a few of the methods employed by performance technologists.

Midstate Appliance Company sells and services electrical appliances. The company's service department employs seven technicians to service and repair everything from microwave ovens to video cameras to refrigerators. The supervisor of the department, concerned over a burgeoning backlog of service work, increasing customer complaints, and a perceived morale problem, has called in Terry, a performance technologist, to see if the technicians' performance can be improved.

After spending some time with the service technicians, watching them at work and talking with them about their jobs, Terry has made the following observations.

Drawing on the work of Gilbert (1978), Terry identifies the exemplary performer who is, without doubt, Allen. Allen has been with the company for 16 years, consistently performs repair work in the least amount of time and, from service records, has the fewest number of jobs called back for additional repair. Terry illustrates Allen's performance compared to the others' with the chart, Figure 1.

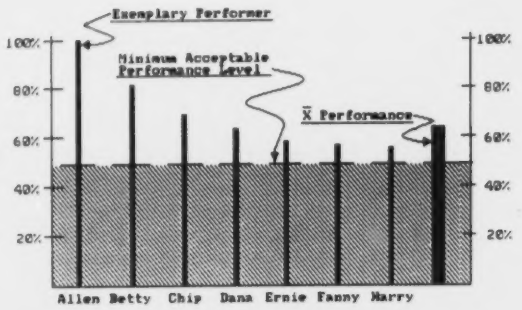


Figure 1

Betty is a technician who does well; in fact, Terry believes she would perform about as well as Allen if she wasn't hampered by back problems. Since Betty is short, her feet do not rest comfortably on the floor when she sits at the workbench. Frequently back pain forces her to work standing even when the task could be more easily performed when seated.

Chip has been with Midstate the least amount of time. He was hired right out of high school and has not had formal post-high school education in electronics or related subjects like the rest of the employees. Chip's performance sometimes suffers because he doesn't know how and when to perform some tests during equipment diagnosis. Occasionally he fails to see the significance of a test he does perform because he is not grounded in the theory of appliance operation.

Dana has the ability to do excellent work but spends an inordinate amount of time on details and non-essential tasks. She has heard that the work area should be kept clean; hers rivals the cleanliness of a hospital operating room. She learned in vocational school to label wires and terminals when disassembling an appliance to facilitate reassembly; she labels everything in laborious detail, even simple circuits that she could put back together with her eyes closed. In addition, Dana is continually badgering the supervisor for advice and assistance with trivial problems.

Ernie is a technician with potential belied by a motivation problem. Since being passed up for promotion to supervisor several years ago, Ernie's performance has slipped substantially. He frequently complains about the perquisites enjoyed by managers and supervisors such as reserved parking spaces.

Fanny is one of the most skilled technicians but works in the most difficult conditions. In the shop, where the other technicians spend most of their time, the repairs are usually on a limited number of equipment brands for which Midstate is a dealer and authorized repair center. But Fanny works most often in the field making service calls where she encounters a wider variety of equipment and often must diagnose equipment without benefit of the manufacturer's service manual.

Harry, the final employee, is poorest performer. He can work well when he wants to, but seems to spend more energy getting out of work than in performing something useful. Harry knows just how far he can push the supervisor. He is late or absent frequently. He complains constantly and demoralizes the other six technicians, especially Ernie. Recently, the supervisor found some tools missing from the workplace and, though he never confronted him with it, had strong suspicions that Harry was the thief.

The preceding summary of the performance of Midstate's technicians forms the basis for Terry's response which is presented here as a series of recommendations (proffered, again, with severe brevity).

1) Furnish workers with adjustable, ergonomically-sound stools and a well designed work area to reduce fatigue.

2) Provide opportunity, by subsidizing tuition, for employees who lack knowledge or skills to take evening courses at the local community college or to study by correspondence.

3) Set up a feedback and reinforcement system which obliges employees to graph their own accomplishments on performance measures developed by the supervisor and Terry.

4) Cultivate the organization's culture through genuine, active participation by top management in OD tasks. These would include defining, articulating, and communicating the visions and values of organizational leadership, reinforcing the prevailing observable indicators of corporate culture that should be preserved, and eliminating or changing others.

5) Devise a job aid to assist technicians with troubleshooting tasks on unfamiliar brands of equipment.

6) Create, with employee input, a systematic method for making hiring, firing, and promotion decisions.

7) Train supervisors to abandon the practice of managing for minimal performance. Rather than working to ensure that employee performance is above the least acceptable level, as illustrated in Figure 1, supervisors should seek to optimize employees' performance by focusing on the **potential performance**, the area on the chart above current performance levels.

The impact of these recommendations on technicians might be summarized as follows.

Betty's performance could improve significantly because the improvements in the design of her workspace would remove the physical limitations that have impeded her performance. Of course, improved workstations will benefit the other technicians as well.

Providing opportunities for training and education will benefit all technicians to the extent they avail themselves of the opportunity and that they have a knowledge or skill deficiency. At Midstate, the primary beneficiary would be Chip. His performance could improve markedly as his understanding of electrical and mechanical theory caught up with other technicians.

A feedback and reinforcement system would include a systematic method for measuring and providing feedback on all performance and then reinforcing desired performance. This would almost certainly result in improved performance from all employees; based on the short sketch of current employee performance, it could possibly be of greatest benefit to Dana. Since people pay attention to the things that get measured, the establishment of performance measures could help Dana focus attention on the things that matter. A feedback and reinforcement system would see that her desire for attention (inferred from the sketch) is satisfied only when her performance warranted it. Rather than reinforcing (paying her attention) for coming forth with trivial problems, she would receive attention when she performed as desired.

The most difficult performance problem of all those presented is probably that of Ernie. Apparently he doesn't perform as well as he could simply because he doesn't want to. And while that sounds elementary, the reasons for not wanting to are related to the complex issues surrounding Midstate's corporate culture. An organization's culture is the sum of the visions, values, and beliefs of the individuals in the organization -- the amount any individual contributes to the culture being roughly proportionate to his or her leadership role in the organization. Any corporate culture is reflected in observable indicators such as the perquisite/punishment systems in place, the customs of dress, speech, and celebrating, etc., and the physical condition and arrangement of work areas. Ernie's motivation problem might be solved by a modifying Midstate's vision, values, and beliefs about employees, and about Ernie in particular. For instance, Ernie's performance might be revolutionized by giving him a change in job title accompanied by increased responsibility, supplying him and the rest of the technicians with the same style and color

uniform as that currently supplied for supervisors, and eliminating all reserved parking for employees.

Fanny is a skilled technician and does not need most of the information contained in most service manuals. Her performance could possibly be improved by equipping her with a conventional job aid, a simple troubleshooting guide to the "off brand" appliances she encounters frequently in the field. A well designed job aid would include specific information pertinent to these brands -- the kind of information Fanny can not be expected to remember. This type of job aid would mean she would not have to carry complete reference manuals for every conceivable appliance she might work on, but might include items like the timing circuit schematic for Whammo programmable washing machines, the test pin/pressure tap locations on each of the nine models of Cool-it air conditioners, and specifications for the different voltage readings at the high frequency-exciter terminals on the five models of Joponcrop VCRs.

Harry is the only non-exemplary performer that has not been specifically addressed by the preceding interventions. It would certainly be hoped, though, that Harry would benefit from all of the interventions, in particularly the feedback and reinforcement system and the organizational development/corporate culture changes. In any case, Harry's poor performance must addressed. He must be made aware of the need to improve and the consequences. If positive changes are not forthcoming and lasting, management will be forced to terminate him. The fact is, there are some performers that will not be helped by any performance improvement intervention. In such cases, the best that can be hoped for is that the incorrigible employee will go to work for the competition. (Is it ethical to wish that on a competitor?)

The new levels of post-intervention performance might be represented, using the same scale, by Figure 2. We now see that all employees (assuming Harry's gone on to other pastures) have improved, including Allen, the exemplary performer. Typically what is good for one performer is good for the others. Additionally, the variance in performance levels has been reduced; performers not only perform at a higher level, they perform at a more predictable level after the application of human performance technology.

Obviously, the contrived workforce and the interventions in this example are much simpler than in the real world. It is unlikely to find a group of seven workers displaying the traits described here. And it would be extremely rare to apply all the interventions described

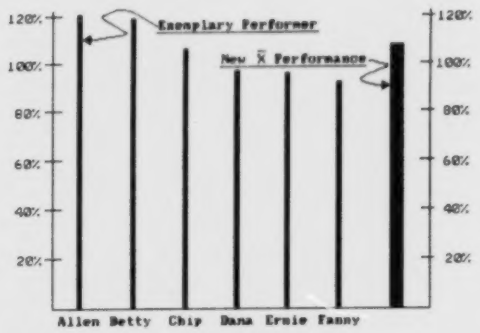


Figure 2

here as presented in this example. Perhaps, though, the reader can see how these HPT methods could be applied in real world work situations with definite results.

Continuing the quest of improved human performance will lead us to further consider the performance of the exemplary performer. After identifying and implementing methods to bring other workers up to the level of the exemplar, it is desirable to consider ways to improve the performance of the exemplar. Of course, as illustrated in the example, it is possible, even likely, for any of the performance improvement interventions described to improve the performance of all performers, including the exemplar.

Efforts to improve performance will sometimes lead to the application of artificial intelligence (AI) to the task. AI tools can often be used as electronic job aids by mediocre performers to raise their performance level to approach that of the exemplar. Additionally, AI tools can even lead to an improvement in the performance of the exemplar.

Artificial Intelligence

Artificial intelligence is a branch of computer science that is attempting to create a machine that emulates human intelligence, a machine that can solve the sort of poorly defined and general problems that only humans can now solve. Efforts to build a general purpose problem solving machine have been rather unsuccessful. On the other hand, notable successes have been achieved since AI scientist began developing expert systems, problem solvers that work in a restricting knowledge domain.

An expert system is a specialized computer program that interacts with a person needing to solve a problem. In so doing, the system appears intelligent. An expert system embodies an expert's knowledge and, somewhat like an expert consultant, interacts with the client to

assist in solving a problem from a specialized knowledge domain.

Expert systems have been used to improve organizational performance and profitability in a wide variety of applications. Examples include the expert system used to assist people who authorize American Express credit card purchases, Digital Equipment Corporation's expert system for configuring computer systems, and an expert system which assists people at IBM in purchasing and disposing of capital equipment (Feigenbaum, McCorduck, & Nii, 1988). These examples are rather large, sophisticated expert systems which often save organizations millions of dollars each year. Other organizations, notably DuPont, have embraced a strategy of implementing many small expert systems with aggregate results comparable to larger systems.

Organizations that have begun to implement expert system job aids are realizing some very significant benefits of the technology. One of the first is the preservation of corporate expertise. Since expert systems, unlike humans, permanently reside in the organization, concerns about retirements and employee turnover are reduced. Expert systems leverage the performance of the all employees with resulting improvements in product quality, efficiency, and customer service. For further information about expert system benefits, The Rise of the Expert Company (Feigenbaum, McCorduck, & Nii, 1988) is must reading.

So expert systems are a very momentous and exciting new technology, but what is it that really makes an expert system different from any other computer program? It is the method with which it searches for a solution to the problem.

Regular computer programs use algorithmic search methods. They are exhaustive and effective but do not appear intelligent. Expert systems, on the other hand, use heuristic search methods, rules of thumb and shortcuts used by human experts to solve the problem. Heuristics are not exhaustive like algorithms, but they appear intelligent because they limit the search for the solution.

To illustrate how this makes it appear intelligent, consider a medical doctor diagnosing your sore throat. We expect the doctor to peer into our throat, make us say "Ahh," take our temperature, prescribe some pills, and tell us to return in a week. The doctor's behavior seems intelligent because the search was limited. If the we were given an exhaustive battery of tests to diagnose a simple sore throat, it might make us wonder about the intelligence and training of the doctor.

The first expert systems were programmed in distinctive AI languages, such as LISP, on mainframe computers or on specialized AI computer workstations. Likewise, the end product had to be delivered on similar machines. The developer had to have a high level of computer programming skills.

Fortunately, there are now PC-based expert system authoring tools that greatly simplify the development task (see, for instance, Ruyle, 1987). Expert systems can be created by non-computer programmers on desktop personal computers. This capability opens up a whole new category of performance improvement interventions for many organizations.

Traditionally, conventional job aids have been a favorite tool of the performance technologist. Job aids are instruments used on the job to improve performance, and, though they are instructional interventions, job aids actually reduce the need for training. Some common examples of conventional job aids include recipes, vending machine displays, troubleshooting guides, and printed step-by-step instructions (Lineberry & Bullock, 1980). Most job aids are paper devices which are laminated or otherwise protected to endure in the work environment. Expert systems are a new breed of job aid: intelligent, electronic job aids.

Besides the material differences in the media, intelligent job aids differ from conventional job aids in some significant ways. Expert systems generally assist with making complex decisions, e.g. diagnosing diesel engine problems or selecting a plastics material for a new product design. Conventional job aids generally are used to reduce the need for memory; the tasks are generally more algorithmic and less prone to interference by contributing factors, e.g. a pilot's pre-flight checklist or printed instructions for assembling a piece of furniture.

Expert systems are more system-directed than conventional job aids. Typically, the user is guided through the consultation session by the expert system, and while the content and ordering of the questions vary from session to session, it is the expert system that decides what to ask and when. Conventional job aids are more liable to be manipulated, for better or worse, by the user.

Finally, intelligent job aids are usually much more able to deal with probabilities and "fuzzy" situations than conventional job aids. Just try developing a flow chart that allows the user to choose a "probably yes, but maybe no" response at a decision point. An expert system can be built to accommodate such responses.

The decision to implement a conven-

tional job aid is not usually too difficult for the performance technologist to make. If the task is an important one that has several steps, is not performed often enough for the performer to remember the steps, and is not precluded by complicating factors, it is a likely candidate for a job aid (Harless, 1986).

In addition to the above criteria, there are considerations which qualify or disqualify a task for an expert system application. The task should be able to be performed, the problem solved, by the human expert in a reasonably short period of time. If it takes an expert up to several hours, it might be appropriate. If it takes several days, it is not appropriate.

The task must be accomplished in an environment that accommodates the computer hardware needed for delivery of the expert system. The hardware delivering a diesel engine diagnostic expert system might survive the greasy, relatively harsh environment in the service bay; it might not survive being bounced around in a service truck and exposed to the even harsher elements if used during field service work.

The task should be important, but not fraught with urgency. Medical diagnosis was one of the very first tasks addressed by an expert system application, and an appropriate one. However, it would not be appropriate for a surgeon to attempt to use an expert system to select a life-saving maneuver in the operating room. The proper method to address such tasks is training, over-training so the task can be done without conscious effort.

Another factor to consider before selecting an intelligent job aid is the level of acceptance afforded by users, the users' peers, and observers. Some mechanics will use the troubleshooting guide in a service manual only as a last resort because they feel it reflects a lack of competence; they don't want their peers to witness their dependency on a manual. If such a phenomenon can happen (and it does) with service manuals that can be used fairly discretely, it may be even more likely to interfere with the use of expert systems. Acceptance can also be hampered by computer illiteracy and by observers' (clients of the expert system user) belief that it is inappropriate. People might not mind seeing a mechanic use an expert system to diagnose automobile problems, but might strenuously object to teachers using expert systems to assign grades to and make promotion/retention decisions about their children.

If all the above criteria are met, the performance technologist must still exercise considerable skill and creativity in implementing an intelligent job aid. The easiest applications are those in which the problem can be structured as a selection problem or a diagnosis problem. It is possible to develop expert systems that do other tasks, such as planning, but it is usually more difficult.

When analysis finally does show that there is a performance problem that can be effectively mediated with an expert system, the performance technologist will have to decide how to proceed. There are several options. There are a few commercial expert system available that address widely shared, generic problems such as making investment decisions. These packages are few and far between, however. Almost all expert system applications to date are custom produced for an organization to handle problems that are unique to the industry or, perhaps more likely, unique to the organization.

Developing a custom expert system can be done by contracted assistance from a vendor/consultant. This is often desirable for the first expert system application, but should not be necessary for many successive applications. Authoring tools are easy enough to use, that it is probably a mistake to not encourage employees to pursue knowledge engineering skills. If two or three employees work with a consultant on the first application, they are usually able to create further expert systems with minimal outside assistance. An additional benefit to this approach is that maintenance of existing systems can be done in-house; the organization does not need to be eternally dependent on outside consultants.

Certainly, the one essential set of skills required to develop an expert system is that required to do the knowledge engineering. It is the knowledge engineer that extracts knowledge from the subject matter expert, manipulates the knowledge with an authoring tool, and creates the final product that is seen by the end user. Fortunately, many performance technologists and trainers already possess many of the skills needed to perform knowledge engineering.

Most performance technologists are computer-literate and will not find it difficult to learn to use a PC-based authoring tool. In fact, that's probably the simplest skill to learn. Performance technologists and trainers are accustomed to working with subject matter experts to obtain content for course construction. This is perhaps the most difficult of the knowledge engineering tasks because human experts are sometimes reluctant to part with their hard-won expertise, and those that will part willingly with it often don't really understand their own expertise well enough to verbalize it. The expertise is so ingrained, it is transparent to the expert. Once the knowledge engineer succeeds in capturing the essence of the expertise, it must be structured in a way that the authoring tool can obtain the same results as the human expert.

All these development issues should not discourage the performance technologist from launching into an expert system project if the opportunity is ripe. Expert systems have more than potential. If properly selected, developed, and implemented, they will be tremendous tools to improve the performance of resources that "walk on two legs."

References

Daniels, A.C., & Rosen, T.A. (1982). Performance management: Improving quality and productivity through positive reinforcement. (2nd ed.). Tucker, GA: Performance Management Publications.

Feigenbaum, E., McCorduck, P., & Nii, H.P. (1988). The rise of the expert company. New York: Time Books.

Gilbert, T.F. (1978). Human competence: Engineering worthy performance. New York: McGraw-Hill.

Harless, J.H. (1986). Guiding performance with job aids. (In National Society for Performance and Instruction; Introduction to Performance Technology.). Bloomington, IN: NSPI.

Lineberry, C.S., & Bullock, D.H. (1980). Job aids. Englewood Cliffs, NJ: Educational Technology Publications.

Mager, R.F., & Pipe, P. (1984). Analyzing performance problems. (2nd ed.). Belmont, CA: David S. Lake Publishers.

National Society for Performance and Instruction (1986). Introduction to Performance Technology. Bloomington, IN: NSPI.

Ruyle, K.E. (1987). [Review of EXSYS: Expert system development package]. Journal of Industrial Teacher Education, 24(2), 102-104.

Ruyle, K.E. (1989). Expert systems: They're here now. Tech Trends, 34(1), 41-43.

Sredl, H.J., & Rothwell, W.J. (1987). The ASTD reference guide to professional training roles & competencies. (Vol. 1). Amherst, MA: HRD Press.

Stolovitch, H. D. (1982). Performance technology: An introduction. NSPI Journal, 21(4), 16 -19.

BASEC

Public/Private Partnership Increasing Minority Access To Professional Jobs

Neal Anderson and Particia Owens

Abstract

Throughout the early 1980's, various gubernatorial task forces on economic development consistently identified one problem with the state's labor market: managerial and professional positions were decreasingly filled by minorities as a result of private industry's inability to recruit qualified applicants from among these populations. In 1986, the Massachusetts Department of Personnel Administration responded by establishing a three year demonstration program called BASEC (Business And State Employment Collaborative).

BASEC's mandate was to facilitate minority hiring by establishing a ready pool of applicants whose skills and qualifications fit the current needs of private industry. Because the program would benefit both industry and the community at large, it was structured as a public/private partnership in which each contributed financially to the program's support. During its three years as a demonstration program, BASEC achieved outstanding growth in both client placement and business participation. In FY87, BASEC had modest success, with 6 placements among 11 member companies. During FY88, BASEC exceeded its placement goal by nearly 100%---placing 29 protected class professionals with combined annual earnings of $935,000 within 19 companies. In FY89, 38 placements were made among 21 member companies with combined earnings of $1,056,300. At the end of the demonstration period, continued demand for BASEC's services resulted in its incorporation as a private non-profit organization.

Introduction

BASEC (Business And State Employment Collaborative) began as a demonstration project nearly four years ago and now operates as a successful, independent non-profit corporation under the name of BASEC, Inc. BASEC's goal is to work with private corporations to help them recruit and hire minority management and professional level applicants for existing positions.

We believe BASEC to be a highly unique organization---not because of the problem it addresses, but because of the private/public partnership which gave it birth and because of the program's unusual success. The combined effort of state and private interests has succeeded in a way neither could alone.

Economics and Politics

Throughout most of the 1980's, Massachusetts' economy was growing briskly. Unemployment was at an all time low, the market was strong and, early on, rumors began to circulate that Massachusetts might once again be asked to lend a favorite son to the upcoming presidential foray. Life looked, and indeed was, rosy for a large portion of the population...with one embarrassing exception. Minority applicants were finding it more difficult than ever to gain entrance into professional and managerial positions.

In April of 1983, the Boston Globe published a six part series on job discrimination in the Boston area. The Globe found that blacks had more difficulty getting a job or earning a promotion in Boston than anywhere in the United States...and the civil rights community wanted to know why.

Local corporations came under intense fire regarding their recruiting and hiring practices. Many of these same corporations had already begun to recognize that extra effort would be needed to attract qualified minority applicants and had undertaken aggressive campaigns to recruit minority employees. Their efforts met with mixed, often disappointing, results.

Into this breach stepped Governor Michael Dukakis. His strong ties to the minority community, as well as his pro business stance, enabled him to bring both sides together at an executive summit meeting in an effort to forge a positive plan of action. Out of this process grew a number of exciting programs. One of them was BASEC.

The Emergence Of BASEC

A directive from the Governor gave David Haley, Personnel Administrator for the Commonwealth, the power and authority to establish the Executive Search Program. This new state entity became responsible for recruiting and referring qualified minority applicants for management and senior executive positions within the state's agencies and secretariats. The recruiting was national in scope, and was supported by a computerized applicant tracking system established to ensure that no applicant would go unnoticed.

In the Fall of 1985, Neal Anderson was hired by Dave Haley to establish a parallel program (BASEC) which would give private business access to the state's new talent bank. The state was already attracting highly qualified minority managers for its own operations and believed that area corporations would benefit enough from the state's recruiting efforts to share the cost of BASEC. Based on the enthusiasm of those in attendance at the summit meeting with the Governor, it was felt companies would be eager to participate.

Public/Private Partnership

BASEC was structured as a financial partnership between the Department of Personnel Administration and the private companies which became its "members." Each member company contributed to BASEC's operating budget by means of a yearly membership fee. The Department of Personnel Administration housed the program, providing clerical and administrative support. In addition to financial support, member companies agreed to notify BASEC of their professional level job openings so that appropriate referrals could be made. Company representatives were also invited to participate in quarterly business meetings and, later, to take part in a minority career networking reception.

With eleven companies enlisted and a veteran placement specialist hired to assist with the program, BASEC went into operation early in 1986.

A Tough Job

Very early on, it was realized that more than just a good idea would be required to make BASEC successful. On the surface BASEC seemed like a straight forward program with a simple job to do---match minority applicants, whose resumes were already on file in the state's talent bank, to job openings

within companies which had committed themselves to affirmative action hiring. But that is not how it worked.

Selling companies on the idea of joining BASEC proved harder than anticipated. Many were interested but few were brave enough to risk the potential fallout in the press if the program should fail.

Once member companies were enrolled, the job got even tougher. The individual(s) responsible for committing their company to membership in BASEC were often too high up in the organization to have direct contact with hiring. Before placements could be made, a working relationship had to be established with the personnel department and hiring managers of each company. Four years later, these relationship are still vital to the success of the program and still requires our utmost care.

We needed to get to know our companies, to understand the jobs for which they hired, and to recognize the skills they sought in applicants. We also needed to overcome a few unanticipated hurtles. Although the umbrella of the state lent BASEC a perception of legitimacy and opened doors during the initial marketing stage of the program, it also proved a stumbling block when it came time to working with our companies. The personnel directors we worked with were all familiar with the state's various retraining and placement programs for unskilled labor. They were happy to speak to us about clerical positions but had difficulty believing we were working strictly with professional level applicants. Also, there was some suspicion that there might be something wrong with an applicant that had to resort to a state sponsored program to find a job. When BASEC finally got its message across that the program's focus was professional and managerial placement, another shock set in.

Recruiting Minority Professionals

BASEC was originally structured with the assumption that many of its applicants would come from the talent bank the state was compiling. Unfortunately, although the state's efforts to recruit top minority managers proved highly successful for its own purposes, those same applicants seldom had the technical background or private sector experience required to compete for senior positions within BASEC's member corporations. BASEC was forced to abandon the use of the state's talent bank and begin its own recruiting efforts.

Once again, BASEC's affiliation with the state helped open doors that were closed to its individual companies. Upon hearing about the program, professional and trade associations with minority chapters were willing to get the message out to their members. Minority alumni associations across the state were mobilized, and more important, friends began referring friends. At the end of the first year, enough interested, qualified, applicants were surfaced to hold the first of what was to become BASEC's primary recruiting event: a career networking reception for minority professionals.

The Receptions

The receptions are not just another job fair. There are no table or booths to put artificial barriers between those in attendance. We sometimes liken them to business cocktail parties, without the cocktails. The atmosphere is "business informal", with an unmistakably serious purpose. Refreshments are served, resumes and business cards change hands and business is accomplished.

Company representatives get a chance to meet face to face with individuals who might be interested in working for their company. Applicants have the opportunity to be seen as something other than just another resume. Something else almost magical happens---*opinions change*.

It is not always the opinions of corporate hiring managers which need changing. Even some minority professionals, it seems, do not expect other minority professionals to be as sophisticated as their non-minority counter parts. Nearly everyone who attends a reception for the first time, be they minority applicant or corporate representative, has the same reaction. They are literally overwhelmed with the "professionalism" of the group. This lasting impression does more to accomplish BASEC's goal than any other single event.

Success and Independence

During its three years as a demonstration program, BASEC achieved outstanding growth in both client placement and business participation. In FY87, BASEC had modest success, with 6 placements among 11 member companies. During FY88, BASEC exceeded its placement goal by nearly 100%.--placing 29 protected class professionals with combined annual earnings of $935,000. within 19 companies. In FY89, 38 placements were made among 21 member companies with combined earnings of $!,056,300. At the end of the demonstration period, continued demand for BASEC's services resulted in its incorporation as a private non-profit organization.

BASEC Inc., now has 27 member companies and four full time staff. It operates out of its own office at 129 South Street, Sixth Floor, Boston, MA 02111. The program continues to focus on the placement of professional level minority applicants and is soley supported by its corporate members. If you would like further details on the program, please give us a call at (617) 451-0303.

The Basic Academic Skills Problem: Minnesota's Study on Standards for High School Education

Office of the Legislative Auditor
Program Evaluation Division

Abstract

Business leaders in Minnesota, as in other states, have alerted state legislators to weaknesses in their new employees' basic academic skills. The Minnesota Legislature commissioned its auditor to independently evaluate high school education and to make recommendations. Results show that test performance is declining, and few local districts have policies to ensure that graduates can read and do math at the high school level. The study also reveals that most high school courses lie outside the core academic areas of reading, social studies, math, and science. Policy changes are recommended to improve high school education in the future. The evaluation was conducted by Marilyn Jackson-Beeck (project manager), Jo Vos, and Dan Jacobson, with assistance from Kathi Vanderwall and Victoria Miller. The full evaluation or a summary report on Minnesota's high school education system can be obtained from the Office of the Legislative Auditor, 122 Veterans Service Building, St. Paul, Minnesota 55155. Phone 612/296-4708.

Minnesota's education system has many strengths and often earns national praise. Legislators and other state leaders have shown their commitment to public schools through generous funding and persistent reform efforts. Yet public education here, as in other states, still faces serious challenges on several fronts.

In recent years, education has been frequently addressed by national and state task forces, commissions, and study groups. Most have concluded that our public education system is inadequate, and some have said that the problems are threatening social stability and economic development.

Over the past decade in Minnesota, the population shifted, and enrollment dropped from earlier levels. This brought cutbacks to some districts during a time when students, post-secondary schools, and business leaders raised their expectations for public education.

To assess the situation in Minnesota, the Legislative Audit Commission asked us to study high school education throughout the state and determine if changes were needed. The key questions we asked were:

- **How well are Minnesota high school students performing academically?**
- **What academic standards have been set for high school education in Minnesota? How do they compare with standards in other states? Are Minnesota's standards adequate to prepare students for higher education?**
- **How much do high school curricula vary in Minnesota? Do the variations have practical significance for students?**

METHODS AND EVALUATION CRITERIA

Our evaluation is based mainly on data from Minnesota's school districts. We reviewed curriculum information which administrators routinely send to the Department of Education, and we examined student test results where available. In addition, we sent a questionnaire to all school superintendents where grades 9 through 12 are taught and made direct contact (in person or by telephone) with administrators in about 100 districts.

Further, we interviewed national researchers and school administrators in other states. Working with the Minnesota Department of Education, we reviewed records of courses which are offered through inter-district travel agreements. Finally, we obtained lists of courses available through interactive television networks.

Our report documents (1) the number, type, and level of courses available to high school students, (2) schedules of instruction, and (3) program standards which school districts meet, exceed, or sometimes fail. In addition, we evaluated the relationship between curricula and education outcomes such as student test scores and college performance.

The evaluation criteria which we adopted reflect five aspects of high quality public education which have gained general acceptance in the United States. These include (1) individualized student-teacher interaction, (2) adequate, focused instructional time at school, (3) academic classes in the four core subjects of English, social studies, mathematics, and science, (4) preparation for further education, and (5) equal educational opportunities for all public school students.

We focused especially on the state's role in education. According to the Minnesota Constitution, the Legislature is ultimately responsible to see that adequate instruction is systematically available statewide. Thus, among other questions, we asked how well the Legislature's constitutional obligation is being met: "...to establish a general and uniform system of public schools" and "...to secure a thorough and efficient system of public schools throughout the state."

PERFORMANCE MEASURES

Among the fifty states, Minnesota ranks high for its college admission test scores, graduation rate, and low pupil-teacher ratio, among other positive accomplishments. However, we found strong evidence that Minnesota's reputation is overstated and out of date.

Favorable socioeconomic conditions inflate Minnesota's performance on standard education indicators--most notably college admission test scores. In any event, these indicators are less favorable than they were in the past because:

- **Results on all three college admission tests are continuing to decline while scores nationally are stable or improving.**

In 1988, an estimated 44 percent of Minnesota's seniors took the American College Test, and they earned the lowest score in state history. For the first time, Minnesota's juniors (51 percent of whom were tested) scored below the national average on the verbal subtest of the Preliminary Scholastic Aptitude Test. Compared with the four surrounding states, Minnesota had the lowest average scores on the Scholastic Aptitude Test--below Iowa, Wisconsin, North and South Dakota.

We found that Minnesota seems to be maintaining its advantage over the nation in basic achievement but falters in tests of college preparation. For example:

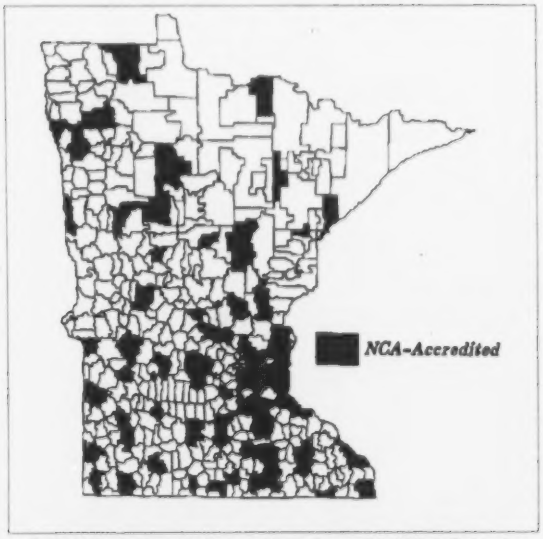
- **Minnesota public school students' average score and passing rate on Advanced Placement tests has fallen to approximately the national average.**

Part of the reason for this performance decline is that the percentage of Advanced Placement test takers nearly doubled between 1985 and 1988. Yet Minnesota's participation rate has climbed only to be about half the national average.

Statewide, few public high schools (27 percent) are accredited through Minnesota's only official accrediting agency, the North Central Association of Colleges and Schools. Moreover:

- **Minnesota's percentage of graduates from accredited public and private high schools dropped five points between 1980 and 1987.**

More than 80 percent of school districts in the Twin Cities metropolitan area have at least one accredited high school, but in other regions, the percentage ranges from a low of 8 to a high of 24.



School Districts with One or More Accredited High Schools, 1987-88 School Year (Source: North Central Association of Colleges and Schools.)

STANDARDS FOR HIGH SCHOOL

We reviewed Minnesota's existing standards and compared them with standards in other states. Results show:

- **Minnesota has weaker standards--especially student graduation requirements--than many other states.**

Only one other state allows high school students to complete just one year each of mathematics and science during grades 9 through 12. Forty-three states (and most of Minnesota's local school districts) require students to take two years of each subject. However, we found:

- **Twelve percent of Minnesota seniors from the Class of 1986 completed less than two years of mathematics, and 17 percent completed less than two years of science.**

Even then, because the state permits school districts to decide which courses constitute mathematics and science, we found that students may cover vastly different material. For example, districts treat computer programming variously as mathematics or vocational instruction. Science can include vocational agriculture (in one district: "hands-on laboratory experience in the field," working with various species of livestock). Similarly, foreign language may count as English, and driver's education as social studies. Also under the category of social studies, we found military training which includes hygiene, flag drills, and weapons safety, among other topics.

In contrast, many other states adopted aggressive, direct reforms after national studies disclosed serious educational shortcomings. In Minnesota, we found:

- **State standards for high school education are not as high as elsewhere, and in some respects they have declined over the past few years.**

Minnesota's 20-credit graduation requirement is near the national average, but the number of instructional days annually is less than most states. In all, only eight states (including Minnesota) require less than 175 instructional days per year.

In 1983, the National Commission on Excellence in Education urgently recommended that all states lengthen the school year and school day, but we found:

- **Minnesota school districts now operate for three fewer instructional days than during the 1968-69 school year.**

While the number of instructional days has declined for students, the average number of non-instructional days for teachers increased from three to eight days over the past 20 years.

	School Year		
	1968-69	1986-87	1987-88
Average Number of Student Instructional Days	176	174	173
Average Number of Non-Instructional Teacher Days	3	7	8

Source: Minnesota School Board Association, Licensed Salaries and Related Information, 1968-69 and 1985-86 and 1986-87, and Superintendent Survey.

Operational Changes in the Length of the School Year, 1968-1988

By comparison with other states, Minnesota does require a relatively long six-hour school day. However, we found:

- **Ninety percent of high school students are allowed to spend as little as five hours in class, and only 13 percent attend districts which have established formal homework policies.**

We also learned that many other states require students to demonstrate a certain level of academic achievement as a condition for graduation. Minnesota declines to require a minimum level of student performance or to assure through a test that students have achieved that minimum level. Yet when we asked local superintendents what policies they maintain on academic performance, results showed:

- **At most, one-third of Minnesota's high school districts have policies which establish minimum standards for graduates' reading and mathematics skills.**

Statewide, we found that 67 percent of the high school districts have no general policy on graduates' minimum reading abilities. Seventeen percent of the districts have adopted policies to ensure that graduates develop reading skills at least characteristic of junior-high or elementary school students in grades 5 through 8. Six percent have policies which set the general level of expectation within high school grades 9 through 12, and 10 percent maintain other policies which do not translate into grade-level equivalents.

Similarly, 68 percent of the superintendents said they operate without any district-wide policy on minimum expectations for mathematics skills. Twelve percent indicated that their district-wide general standard is to expect ciphering abilities at least at the 6th to 8th grade level. In seven percent of the districts, we found policies which set minimum mathematics expectations at the high school level, and in 13 percent we found other policies which do not specify grade-level equivalents.

In addition, we asked superintendents to describe any other district-wide, established policies they have on the academic level at which they expect their graduates to perform. Most (61 percent) indicated they have no additional policies on graduates' academic abilities.

INSTRUCTIONAL VARIATIONS

Minnesota districts vary greatly in the amount of instructional time they require and provide to high school students. Thirty-seven percent of high school students are permitted no more than 5.5 hours of daily instruction, but nine percent of students can enroll in classes for more than 6.5 hours. Most districts provide seven instructional periods daily, but some have four and others nine. A few districts are open only four days weekly (but have longer school days).

	High School Districts	High School Students
MINIMUM CLASS TIME STUDENTS MUST TAKE DAILY		
Less than 4 Hours	3%	6%
4:00-4:30	29	29
4:31-5:00	44	52
More than 5 Hours	24	10
District Average:	4:47	
District Median:	5:00	
MAXIMUM CLASS TIME STUDENTS ARE ALLOWED DAILY		
5:00-5:30	13	37
5:31-6:00	57	41
6:00-6:30	26	13
More than 6:30	4	9
District Average:	5:55	
District Median:	5:50	

Note: Some percentages do not equal 100 due to rounding. Figures based on districts operating on five-day weekly schedules.

Source: Superintendent Survey

Daily Minimum and Maximum Class Time, 1987-88

In some cases, the additional time is needed because students are bused during the day to other districts so that they can take courses which would otherwise be unavailable. However, instructional time may be lost because districts use different class schedules. Class periods typically range from 46 to 59 minutes. Vacation schedules also are different, with the result that inter-district cooperation can be complicated. For example, in one district which opens its classes to students from another district for part of each day, lessons continue when remote sites do not have school.

Although the Department of Education defines a credit as 120 hours of instruction, our evaluation showed that districts have other expectations. The statewide average is 147 hours, but a few districts require even more than 160 hours of instruction per credit. In addition, most (but not all) districts require more than 20 credits to graduate. As a result:

- **Between grades 9 and 12, some Minnesota students must take the equivalent of an additional year of classes in order to graduate.**

Most often, the differences amount to nearly one-third of a year. We found that about one-fourth of the districts require high school students to take up to 3,020 hours of instruction to graduate, while another fourth require graduates to finish at least 3,351 hours.

We learned that no one at the Minnesota Department of Education has a full-time responsibility to monitor regular education programs in local districts. Overall:

- **State oversight and monitoring of districts' compliance with curriculum standards is inadequate.**

The department has a curriculum monitoring project, but it stopped monitoring districts that met minimum standards in 1986-87. The department has an Office of Monitoring and Compliance, but most of its activities concern special education. One person from another unit spends an average of ten hours monitoring regular education weekly; others are called in on occasion.

Part of the reason for the lack of monitoring is that state curriculum standards are rather easy to meet. Under the existing regulations, districts can (and do) count correspondence and interactive television courses as their own. If a district offers two courses every other year, it can count both toward state requirements. Some districts meet state requirements by placing beginners and second-year students in the same class (counting this as two courses). When students are bused elsewhere for several periods daily, home districts are free to count the classes as though the students were on site.

Despite the many alternative methods of curriculum delivery, we also found:

- **Nearly one-fourth of Minnesota students would suffer a competitive disadvantage if they applied to selective colleges because their districts provide them with too few curricular opportunities.**

During the 1987-88 school year, 19 percent of high school students attended districts without the Advanced Placement or honors courses which are recommended by Macalester and Carleton Colleges. Further, 15 percent of high school students attended districts that did not provide three years of a foreign language as expected by Macalester College and recommended for future admission to the College of Liberal Arts on the University of Minnesota-Twin Cities campus.

	Districts Not Meeting Standard		Students in Districts Not Meeting Standard	
Standard	Number	Percent	Number	Percent
Four years English	0	0%	0	0%
Three years social studies	0	0	0	0
4-Year mathematics sequence	7	1.7	484	0.2
Biology, chemistry, physics	3	0.8	451	0.2
Three years foreign language	191	48.5	34,675	15.3
Honors or Advanced Placement	204	51.8	42,701	18.8
Total High School Districts 1987-88	(394)		(226,316)	

Provision of Courses to Meet College Entrance Standards, 1986-87 or 1987-88

BEST COPY AVAILABLE

On the other hand, we found that over the past ten years, high school students' educational aspirations have risen so that:

- **The majority of Minnesota students now enroll in post-secondary schools after graduation, and the majority plan to graduate from a four-year college.**

During the 1987-88 school year, 64 percent of Minnesota public school juniors said they plan to earn at least a four-year college degree (including 13 percent who expect a master's degree and 8 percent who wish for diplomas from post-graduate professional schools). As recently as 1978, a combined total of only 41 percent of Minnesota juniors planned on this level of post-secondary education.

Our study found that at least some students in every school district clearly intend to go to college. This contributed to our conclusion that:

- **Many districts provide too narrow a range of academic courses.**

While 35 percent of students attended districts that provided more than 60 academic courses on a typical day during the 1987-88 school year, we found that another 22 percent were limited to fewer than 30 regular classes in English, social studies, mathematics, and science. In 1986-87, the only language available on site in 57 districts was English, but students in other districts could choose classes in as many as seven foreign languages.

Thus, we concluded:

- **Some students have unequal access to high school education in Minnesota.**

Among several district characteristics which might explain curriculum variations, our study shows that enrollment size is the single most important factor. That is, the more students, the more academic courses. In addition, two important but lesser factors are (1) the percentage of adult residents who graduated from college and (2) revenues from local referendum levies.

Number of Core Academic Courses[a]	High School Districts	High School Students
9-19	26%	5%
20-29	41	17
30-39	15	13
40-59	13	30
60-85	5	35
Total High School Districts, 1987-88	394	226,316

Source: Superintendent Survey.

[a]Includes English, social studies, mathematics, and science courses provided daily.

Variation in Number of Core Academic Courses Taught on Site, 1987-88

RECOMMENDATIONS

Based on the extent and importance of the differences which exist in curricula and delivery methods, and the need to ensure students' basic academic achievement, we believe that state actions are needed to improve high school education in Minnesota.

We considered a range of policy options and concluded that the Legislature should:

- **Establish more ambitious, uniform state standards and goals for academic curricula and outcomes.**
- **Provide for systems and staff who would monitor compliance with the new standards on a timely basis.**
- **Ensure full disclosure of comparative information which would summarize each district's high school programs, populations, and outcomes.**

We believe that Minnesota's education policies need revision, and the three recommendations above, if adopted, would resolve the most pressing problems which our evaluation disclosed. In our view, a lack of clear, consistent state policies and comparative information has allowed inequities to develop. But in addition, the Legislature might also consider the following recommendations which would address more specific situations.

First, assuming that the Department of Education upgrades its systems for monitoring regular education and publicizing districts' compliance with state standards, we recommend:

- **The Legislature should direct the department to develop an annual certification program to ensure that each district in the future provides adequate and advanced high school courses.**

We think that students and parents would be empowered to exercise the state's open enrollment option more effectively if differences between districts were clearly indicated. We recognize that some program variations will continue and may be desirable within limits, but parents and students should be informed about those variations.

Second:

- **The Legislature should encourage gradual reorganization which would place at least 100 high school students (grades 9 through 12) in each district.**

We found that about 75 of the state's high school districts have fewer than 27 students per grade and that districts of this small size give students less choice of courses, less opportunity for student-teacher interaction, and fewer advanced courses which selective colleges recommend. Also, these districts have the highest operating costs.

We also recommend that:

- **The Legislature should enact a program of statewide universal testing which would ensure that all public high school graduates have at least 11th grade reading and mathematics skills.**

Currently, Minnesota districts use more than 80 tests to assess curricula and measure students' academic achievement, skills, and aptitudes. We suggest that the State Board of Education should select a national test which reliably and uniformly establishes at least students' reading and mathematics skills.

Various standard tests of basic reading and mathematics skills are widely used in Minnesota, and we found that 17 percent of high school districts already require students to achieve certain test scores as a condition for graduation. We think every district should test its students, thus assuring that high school graduates throughout the state have universally achieved academic skills in two vital subjects.

In our view, aggregate test results comparing each high school to the state average also should be published as well as other information to enable parents, the state, and local communities to monitor their schools and take appropriate steps when performance lags.

As an additional measure, we suggest that:

- **The Legislature should consider a restoration of Minnesota's instructional year at least to its previous length and consider a requirement that districts develop homework policies.**

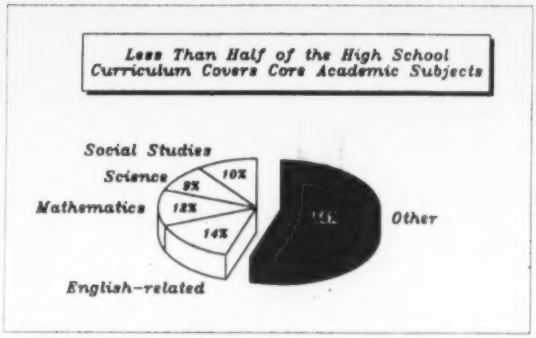
Our evaluation shows that previous legislation had the effect of reducing Minnesota's instructional year by five days--to a level below what it was during the late 1960s. Our survey of superintendents revealed that only 13 percent of the state's high school students attend districts where homework policies were in effect. By requiring one hour of homework each week night, students would receive the full benefit of the state's currently required six-hour school day without additional state or local spending.

Finally, we suggest that:

- **The Legislature should direct the State Board of Education to increase and reconfigure graduation requirements so that high school students in the future devote the majority of their time to English, social studies, mathematics, and science.**

We believe two additional credits (equivalent to two year-long courses) beyond the state's current 20-credit graduation requirement would be helpful in light of most high school students' plans for further education. Also, we suggest that state standards in the future should encourage future students to concentrate their studies in the core academic subjects of English, social studies, mathematics, and science. Surprisingly, our evaluation shows that less than half of the typical high school curriculum now covers

these subjects which, we believe, should be the heart of public education in the future.



Distribution of High School Courses Taught on Site Daily by Subject Area

THE BLUE COLLAR WORKER: WHERE DO THEY FIT ON OUR CAMPUSES AND IN OUR TRAINING

ELIZABETH C. MENSON, PH.D.

It is true that business, labor, and education partnerships are making headway in many communities and even in many states. However, it is only recently that there has begun to be an understanding of the restructuring of systems and attitudes that needs to take place by all parties for these efforts to be successful. Restructuring of any system seems inevitably to be more time consuming and more complex than originally planned, and attitude change takes patience, communication, and the building of trust in order to develop working successful partnerships.

In this presentation, I will be addressing particularly the educational issues that may arise from collaboration between business, labor, and education by discussing a specific project, the UAW/Ford College University Options Program (CUOP) launched in September 1984. I have served this project as a Regional Consultant assigned to five plants in Ohio in three different locations — Toledo, Lima, and Cincinnati — and have worked with the plant personnel, educators in the colleges and universities, and the UAW/Ford National Education and Development Training Center (NEDTC) in Detroit. In each location that I serve there have been joint labor/management committees with responsibility for the implementation of this creative venture. The major goals are to become partners in a program designed to encourage the union worker to return to learning. In the words of Donald Petersen (1988), Chairman of Ford Motor Company, "People are the real resource of any enterprise, and those people have to be given every chance to optimize their abilities, knowledge, and skills."

As the project developed guidelines in 1984-1985, the NEDTC held numerous briefings with institutions of higher learning throughout the major cities and states where Ford plants were located. They were invited to become partners in this venture both in helping to design programs and to facilitate participation in learning by workers in the plants. In Ohio, Regional Councils were established to assist the plants in delivery of services. These Councils usually consisted of plant UAW/Ford joint local Education, Development, and Training Program (EDTP) Committees, the plant Life Education Advisor (LEA), representatives of the educational providers in the region, and the CUOP Regional Consultant in some locations.

Since the initiation of the project, more than 140 colleges and universities have become partners with UAW/Ford. In 59 plant locations, classes have been held with over 22,000 enrollments in these classes. Over 400 UAW members have received two year degrees and many are continuing on to four year degrees.

Of course, a project of this magnitude is not without its problems. And one of the most time consuming, particularly for the educational partners, was seeking innovative ways to eliminate roadblocks and barriers to this new group of students and still preserve academic integrity. A great deal of effort was put into developing and sharing course work. The educational representatives on the Regional Council sought out faculty who were receptive to change and could teach working adults. The in plant personnel spent time doing assessments of needs and generally building an awareness of both the program and the educational offerings. For many in the plant, higher education was not viewed in a positive light. On the other side of the table, some in the educational institutions viewed the blue collar population as unable to cope with any educational program beyond the high school level. Even the terminology of the project was confusing. What is the difference between job-related education and education for personal development?

Many years ago Alvin Toffler, in his book Future Shock (1971), caused consternation and great discussion in both the business and academic community. He made three important recommendations for survival in the future: we would need to know how to learn, how to relate, and how to choose. As this CUOP venture began to take hold in the plants, it became obvious to all the partners that these changes would need to take place both in the environments and systems in order for learning for the future to take place. Some of those changes have been and are continuing to take place — new delivery systems, collaborative course offerings, credit exchange between institutions, prior learning assessment from a technical perspective, and a broadened approach and understanding within the state system of roadblocks to innovation. In addition, there have been some new and exciting approaches to training both within the plants and within the Regional Council schools for those involved in delivery of course work in CUOP.

As a regional consultant since the inception of CUOP, I have been privileged to see the payoffs that can develop when a group of people from totally different environments look at learning from a collaborative, creative viewpoint rather than a competitive controlling one. However, in order for these projects to succeed, there needs to be that collaboration and the recognition that the partners generally are coming from different worlds with different sets of expectations. This is particularly true when the awarding of college credit and degree completion is involved. For those in the academic areas, such issues as credit transfer, awarding of credit for prior learning, residency requirements, etc. can pose dilemmas. For those in the industrial areas, the academic vocabulary, course sequencing, inflexible delivery systems, and degree requirements not only pose problems, but are also threatening to the workers' self concept.

For those who have been engaged in the excitement of this project, are there challenges still ahead? From my viewpoint, there are indeed many questions yet to be answered. Can schedules or work both in the plant and within the educational institutions be reorganized or redesigned to better accommodate the goals of CUOP? Are local EDTP committees with their many other assignments able to spend the time necessary to work out the roadblocks, or will it be easier to deal with consultant organizations who offer one-time packages? Do the educational institutions have counseling and faculty personnel trained to deal with this population and, if so, do they have the time to make this a priority? Will cooperative regional efforts continue if college enrollments decline, or will each of the colleges become more concerned with their own vested interest?

In the words of Dr. Gary Hansen (1985), Utah State University, an outside appraiser of CUOP, this project "is a prototype of the kind of cooperatively run institutions and new human resource development approaches that are desperately needed in America if we are to be competitive in the world economy of the twenty-first century." It is my hope that those UAW/Ford members, Ford employees, and educators privileged to participate in CUOP will share their experiences, ideas, and research with others in order to provide a model which will have an impact on not only the industrial community, but all of society.

Reference List

Brookfield, S.D. (1986). Understanding and facilitating adult learning, San Francisco: Jossey-Bass.

Carnevale, A.P. (1989, February). The learning enterprise, Training and Development Journal, 43 (2).

Hansen, G. (1985, Spring). An outsiders appraisal, From Vision to Reality, IRRA Proceedings.

Schlossberg, N.E., Lynch, A.Q., & Chickering, A.W. (1989). Improving higher education environments for adults, San Francisco: Jossey-Bass.

Terkel, Studs (1972). Working, New York: Avon Books.

Toffler, A. (1971). Future shock, New York: Bantam Books.

BUILDING AN ETHICAL FRAMEWORK FOR THE WORKPLACE

SHIRLEY R. RICKERT, ED.D.

Abstract

Questionable ethical business practices plague most organizations, whether they be government, industry, education or social service agencies. While much attention if focused on the "big business" unethical behavior, not much attention is accorded to the vast majority of the workforce in regard to what is and what is not ethical work behavior. Periodically one can read an article about "blue collar crime" or "white collar crime" which tend to mention instances of taking home small supply items or making personal long distance calls at the company's expense. These behaviors are unethical and immoral according to the work rules in the United States as well as being costly to the company and society in general. In addition, problems exist such as restricted output, deliberate sabotaging records, and the destruction of vital computerized information. The total cost of unethical work behavior, including the law suits and remedies experienced by companies and corporations, is staggering.

Background

The "technology explosion" which emerged somewhat concurrently with the "information explosion" has created some new challenges for managers and workers alike. The lack of emphasis on policy-making from a moral and ethical focus is now becoming all too clear. Business schools, before the 1980's, tended to take the view that ethics were something students learned at a lower level of education, and felt no need to include such training in their curriculums. And while engineering schools have included ethical work behavior as part of a particular course, students seem not to have taken such training too seriously.

In recent years the literal rash of ethical/moral problems have produced severe problems for large international corporations. The American media seems to have taken particular delight in uncovering, dissecting and reporting on the transgressions of business and industry. It is not uncommon to pick up a daily newspaper from any town in the United States and find headlines regarding the "bad deeds" of Exxon, Lockheed Aircraft, Ford Motor Company or Gulf Oil. There seems to be an almost perverse delight in the manner in which reporters write accounts of wrongful business practices. This kind of public relations is not the kind business and industry really want.

An examination of such behaviors must include a consideration of the relationship between business and government in the American setting. With big business comes big government - or is it vice versa - which tends to complicate life. And, as can be seen from very recent happenings in the Senate and Executive Branch of United States government, ethical and moral problems are not unique to business and industry. Indeed, ethical and moral problems are "equal opportunity" events in the very true sense of the words.

What can be done?

What can be done to help curb this ever-increasing problem? Who should be charged with constructing and monitoring ethical work behavior? Is any level of the workforce immune to such temptations? Where can the line be drawn? Who decides what is and what is not proper work behavior? How much control can management exert in attempting to keep the company's "slate clean and above reproach?" These are very perplexing questions which need to be addressed if the situation is to be changed in a positive direction in the coming years. Perhaps a look at an informal research project of limited scale can provide some clues and ideas regarding ethical worker behavior at the entry and middle management levels.

BEST COPY AVAILABLE

The Study

The study involved several Midwestern business and industry firms. Over 200 entry and middle level managers participated in training sessions focusing on ethics in the workplace. The training was three hours in duration with approximately 20 people in a session. Using an instrument similar to "Where Do You Draw The Line: An Ethics Game" published by Simile II (1977), data were gathered from several midwestern companies. These companies ranged in size from small to large organizations employing 10 to several hundred people. The data were generated from activities which were but one part of training sessions entitled "Ethics in the Workplace."

The results are extremely interesting. Despite the small size of the sample, conclusions can be offered. Briefly, people tended to make a "right - wrong" connection to work behavior when in was direct and involved another known person (i.e., taking cash from a co-workers purse). When ethical behavior regarding the customer whom the worker might never see was contemplated, the "right - wrong" connection faded appreciably (i.e., reporting a batch of contaminated food which might not make anyone ill. Most participants felt that "playing the odds" in such cases was justified by the adverse financial effects that might result from any corrective action).

Whether the inability to make such a connection was lack of knowledge or a product of deviant behavior was not at all evident. Workers need a fairly clear understanding of the goals and philosophy of the company in order to gain any kind of self-confidence regarding such decisions in their work performance. The results do suggest that, given the rules of work behavior in the United States, there is a rather severe problem relating to workers being able to determine what is "right or wrong" performance in the workplace. It seems that the lessons that most people think are taught in the early years are not lasting, if they took place at all.
Demographics of the population surveyed are expressed in the following table:

DEMOGRAPHICS

N = 223	Male participants	160	(72%)
	Female participants	63	(28%)
Management levels of participants:			
	Entry level	126	(58%)
	Middle level	97	(42%)
Size of employers of participants:			
	Over 100 employees	54	(24%)
	Under 100 employees	169	(76%)
Types of employers of participants:			
	Industrial	187	(84%)
	Service	36	(16%)
Types of sessions conducted:			
	In-house	168	(75%)
	At IPFW	55	(25%)
Educational backgrounds of participants:			
	High school graduates	107	(48%)
	Some college, no degree	63	(28%)
	College graduates	53	(24%)

Data regarding age categories was not gathered, but the participants were between the ages of 20 and 58.

Additional Training

Additional information presented included organizational philosophies, codes of ethics of organizations, common ethical education of participants and suggestions regarding the development of an ethical awareness for workers. This training focused on the examination of ethical problems personalizing the situations given, that is, "putting yourself in the consumer's shoes", or in the receiver of the work decisions made. The Golden Rule was mentioned by participants and instructor throughout the sessions.

The concluding exercise of the training session was a short vignette which illustrated not only ethical and moral questions but also how the United States culture has conditioned us to adopt certain ideas which may or may not match the facts of the situation at hand (i.e., a situation in which a natural reaction seems to be to assume that the male and female involved had no choice of action due to their biological aspects. Most participants stated that "hanky panky" (copulation) was unavoidable when it really was not the only behavioral option). A handout summarizing ideas and actions which can promote ethical awareness regarding one's work behavior in conjunction with one's personal integrity was presented to each participant.

The lessons learned by the participants and the instructor during these sessions produced an awareness than can be of great benefit to the worker and the company in the future work behavior of the employees. If workers are expected to conform to company ethical and moral policies, they need not only

be aware of those policies but also their own ethical and moral values on an individual and citizenship level. Education, business and industry share the monumental task of determining and revealing the desired ethical and moral work standards. Yesterday was not too soon to attack this problem.

Concluding Remarks

This study is but a beginning of an examination of ethics in the workforce. The more complex workplaces become, the more removed the individual tends to be from the internalization of event and results regarding work behavior. It may be easy to see why taking money from another individual in the workplace is unethical and immoral, but the connection between altering computer records and the resulting actions is much less clear. Indeed, some people view machine-generated transgressions as not wrong since they tend not to make the "human effects" connection. A base for developing ethical work behaviors is a prime requisite to effective, quality work which is also personally and monetarily rewarding for the worker. Although some organizations have viewed this as a problem for the schools to resolve, they will now need to become intimately inolved in helping to remedy this situation. The results of continuing to ignore the problem will be low worker morale, low productivity, low quality of product which all mean lower profits and a much lower quality worklife.

BIBLIOGRAPHY

Frankena, Wm.; Ethics: Prentice Hall, Englewood Cliffs, N.J.: 1963

Hosmer, Larue; The Ethics of Management, Irwin Publishers, Homewood, IL: 1987

Donaldson, T & Werhane, P: Ethical Issues in Business, 2nd Ed; Prentice Hall, Englewood Cliffs, N.J.: 1983

Hoffman, W & Moore, J: Business Ethics, McGraw-Hill, New York, 1984

Evans, W; Management Ethics, Kluwer-Nijhoft, The Hague, Netherlands, 1981

Mappes, T & Zembaty, J; Social Ethics: Morality and Social Policy, McGraw-Hill, San Francisco, CA : 1977

Manning, G & Curtis, K; Ethics at Work: Fire in a Dark World, Southwestern Publishers, Cincinnati, O: 1988

Stein, Ben; Bunkhouse Logic, Avon Books, New York: 1981

"Changing Unethical Organizational Behavior," Richard Neilsen, The Academy of Management Executive, Vol. III, #2 - May 1989 (pp. 123 -130)

"Ethics: Easier Said than Done," Vol 2 #1, 1989

Journal of Business Ethics

CAREER WELLNESS IN HUMAN RESOURCE DEVELOPMENT

DAVID SCHWARTZ

Abstract

American business is getting fit both physically and mentally. Employers recognize the value of maintaining the human machine. U.S. companies have realized that wellness is good business. Healthy, motivated workers produce more at less expense. As we enter an age where employers will be required to compete for a shrinking workforce, it will be critical to recruit, develop and retain quality employees. The Career Wellness Model offers a rational concept for dealing with American industry's physical and mental needs.

"Early to Bed,
Early to Rise,
Makes a Man,
Healthy, Wealthy and Wise."

Benjamin Franklin

As an observer of labor market trends and their effect upon the American worker, I must disagree with Franklin's classic saying. In reality, the workplace tends to increase a worker's likelihood of physical and/or mental disease.

The U.S. workforce has become extremely conscious of its individual physical and mental needs. American business is quite aware that a healthy worker is a productive worker. In response, industry has made a concerted effort to institute a variety of on-site health related activities. One recent study (National Survey of Worksite Promotion Activities, 1988) discovered that 66% of worksites with 50 or more employees provided at least one health promotion activity. A multiplicity of activities fall under the umbrella of wellness, however, physical wellness activities pervade the health promotion scene (Schwartz, 1989).

Rapid expansion of Employee Assistance Programs (EAP's) over the past five years indicates that American employers recognize the need for employees who are both physically and mentally fit. Although EAP expansion appears correlated to organizational size (National Survey of Health Promotion, 1988; Densford, 1988) the increase in programs and services denotes a significant shift in employer attitudes.

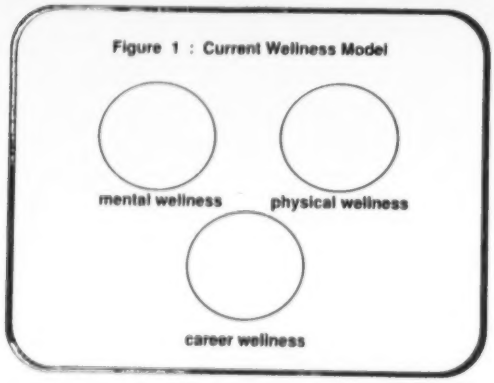
One theme recurs time and again; job satisfaction and increased productivity are prime motivators for establishing company sponsored health related activities. American business has bought into the concept that a healthy employee is a satisfied, motivated and productive employee.

I find the wellness puzzle incomplete. Employee satisfaction and productivity rest upon the individual's role within his/her environment and the process of human resources development within the organization.

Traditionally an individual's life is analyzed and judged through the separate roles he/she plays, as if the person is a machine of many parts (McDowell, 1989). Freud defined mental health in terms of love and work (LaBier, 1986). People commonly speak in work related terms when describing themselves socially. The indictment against present company sponsored wellness programming is business' denial of its integral role in workers physical and mental

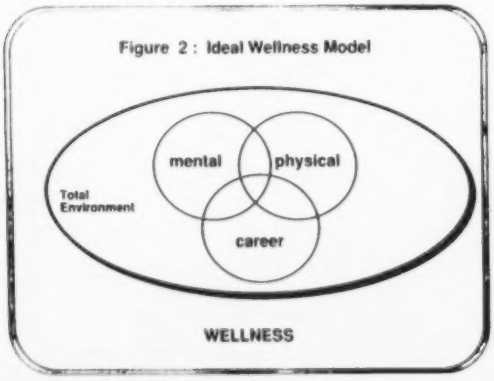
health. Today's workplace contributes directly and indirectly to employee wellbeing.

Organizationally, wellness activity seems to fall into one of three categories (figure 1)



physical, mental or career oriented. Interaction between components is generally informal, often reporting to different sectors within the organization. This is understandable given the hierarchic tradition of the workplace (Schwartz, 1989).

From my observations, a holistic model integrating each wellness component into an overall employee development package can, and will, facilitate worker satisfaction, productivity and good health. (Figure 2)



Eliminating program diffusion through segmentation reduces internal competition for funding and audience while encouraging a coordinated system of human resource development.

The National Wellness Institute was one of the early (figure 3) proponents of the wellness system theory. The Six Dimensions of Wellness was one of the first models to include a career related component (National Wellness Institute, 1979). The vocational/occupational dimension, characterized as involvement in preparing for work in which one will gain personal satisfaction and find enrichment in one's life through work, is visionary, yet incomplete. Career Wellness should be comprehensive.

SIX DIMENSIONS OF WELLNESS

Employees should enter the organization, be oriented, trained, developed, retrained and counseled for retirement all within the work environment (Schwartz, 1989).

In view of the economic and institutional climate of America and its workforce, this is not idealism, but pragmatism. Corporate training, ranging from remediation to executive development, is presently estimated to cost U.S. employers between 40 and 80 billion dollars annually. Such costs are staggering when one out of five employees leaves a job every year, and one in ten switches careers every year (Birch, 1987). Is business getting its money's worth training and retraining a transient and often mercenary workforce? What will be the longitudinal physical and mental expense to individuals within this rapidly evolving workplace? Career Wellness provides a theoretical base upon which a process to hire, train, motivate and retain productive workers can be developed. By recognizing human resources as the engine of the industrial machine rather than just interchangeable parts we will stimulate motivation, creativity, quality, commitment and wellness (Waterman, 1987).

As professionals we have a vested interest in the workplace of tomorrow. We must envision the work site as a dynamic human community. As we enter the nineties employer and employee alike will become increasingly aware of the human endeavor we call work. We must relax the bureaucratic traditon of the workplace and evolve into a more open and holistic system. To plan for the future, using the experiences of the past, during a time of rapid social and economic change, is shortsighted. The true nature of the American labor market is creativity and a can do spirit. The career wellness concept provides a framework upon which we, as leaders, can build.

Resources

Birch D. (1987) Job Creation in America. Free Press. New York.

Carneval AP. (1986) The learning enterprise. Training and Development Journal, 40(1):18.

Christenson GM, & Kief Haber A. (1988) Highlights from the national survey of worksite promotion activities. Health Values 12:29.

Densford LE. (1988) Bringing employees back to health, work. Employee Benefit News 2:19.
Gutteridge TG. (1986) Organizational career development systems: The state of the practice. Career Development in Organizations. Jossey-Bass, San Francisco, p. 77.
Hettler B. (1979) Six Dimensions of Wellness. National Wellness Institute, Stevens Point, WI.
Hoyt KB. (1989) The concept of work: Updating a point of view. Career Planning and Adult Development Journal. 5(2), pp. 24-26.
LaBier D. (1986) Modern Madness. Simon & Schuster, New York.
Locke EA. (1976) The nature and causes of job satisfaction. Handbook of Industrial and Organizational Psychology. Rand McNally, Chicago, pp. 1297-1349.
McDowell CF. (1989) Wellness in the leisure-work relationship. Career Planning and Adult Development Journal. 5(2), pp. 17-23.
Schwartz D. (1989) Career Wellness. Fitness in Business. (2), pp. 138-140.
Waterman RH. (1987) The Renewal Factor. Bantam Books, Toronto, p. 6

THE CASE EDUCATION AND IMPROVEMENT CENTER:
A PARTNERSHIP IN WORKPLACE LITERACY AND BASIC SKILLS

VIRGINIA VANDENBERG
GATEWAY TECHNICAL COLLEGE
CARL ZEMPKE
UAW-LOCAL 180
DON MATT
J.I. CASE MANAGEMENT
BOB MATELSKI
J.I. CASE COMPANY
RACINE, WISCONSIN

Abstract

As technology rapidly changes the face of the American workplace, the problems of an undereducated workforce become much more evident. The J.I. Case Company in Racine, Wisconsin, was faced with the pressures of an increasingly competitive world economy, and an aging, underprepared workforce. In this presentation, the partners in the development of a workplace literacy program will describe their efforts at establishing an on-site center for employee education and improvement. The three partners--Gateway Technical College,the J.I. Case Company, and the United Auto Workers Local 180--will each be represented on this panel to share the history, implementation strategies, and day-to-day challenges of initiating this plan. In addition, an employee who utilizes the Center will describe his experience and involvement.

INTRODUCTION

The J.I. Case Company was founded in 1842 to build threshing machines, and later became the first and largest builder of steam engines for agricultural use. Today, J.I. Case produces a full line of farm and industrial equipment. As we move through the nineteen eighties and into the nineties, Case is faced with a number of challenges. In order to keep pace with an increasingly competitive world economy, production technology has been continually updated. Work which could be memorized and performed routinely has been replaced with computer designated tasks and multiple task assignments. The aging Case workforce has been unprepared to handle these changes. Their underemployability has been highlighted by their inability to work with these advancements, making internal mobility and job preservation difficult. The increased need for verbal and written communication skills within the supervision and productions staff called for a better-educated workforce.

ESTABLISHING THE CENTER

While the Case Company and the local UAW # 180 were assessing the needs of their workforce, Gateway Technical College was moving forward in the community with efforts to promote workplace literacy. Funds became available through the United States Department of Education, in the form of a grant from the National Workplace Literacy Program. A partnership was formed at the state level by the Wisconsin State AFL-CIO, the Wisconsin Manufacturers and Commerce Association, and the Wisconsin Board of Vocational, Technical, and Adult Education which gave impetus to this endeavor. This seed money encouraged development of the partnership among the three local groups which resulted in the establishment of the Case Employee Education and Improvement Center. The common goal of this alliance has been their desire to maintain a viable workforce, ready to meet the challenges of the eighties, nineties, and the year 2000. It is important to note that it was the collaboration of the three groups which made this undertaking possible. The needs were recognized by the Case Company, and with management cooperation the financial resources were provided to identify and develop the facilities for the Center. The Union has played a central part by continually seeking educational opportunities for the membership, and specifically by promoting the Center within the existing workforce. Gateway Technical College was able to provide qualified staff, generous materials, and state-of-the-art equipment with which to meet the needs of those students entering the Center for service. In addition, Gateway Staff provide instruction and support to the Center students. It is also necessary to mention the many 'unseen' collaborators, people from all three groups committed to the success of the Center, who gave time and energy to the project outside of their prescribed roles.

THE CENTER TODAY

The Center has been in operation for almost one year, and has been successful in the eyes of the collaborating partners. Located on the grounds of the Racine tractor plant, the Center is available at a variety of times to suit the requirements of workers from all shifts. The Center provides educational activities designed to upgrade participant skills in reading, written and oral communication, mathematics, reasoning and problem-solving, and English usage.

BEST COPY AVAILABLE

Students who use the services of the Center usually have specific goals, whether to upgrade skills for a position within the company, certification, to supplement existing skills, or to attain the basic skills necessary for continued job performance. Students may complete work in the Center, or take the work home and return to the Center for assistance and additional assignment.

The Union has been instrumental in developing a "peer advisor" program. This program is used throughout the work area to promote the services of the Center and to identify workers whose skills are in need of upgrade. Periodic training for peer advisors is held by the Center staff. Open houses at the Center have been very successful, with both participating and prospective students attending.

BENEFITS OF THE CENTER

Since the establishment of the Center, the benefits have been apparent to both the company and the workforce. The Case Company has seen the development of better-prepared, more flexible workers. Jobs which may have been sent to other sites for work can now remain in the local plant, in the long run enhancing the productivity and efficiency of the company. The worker is able to feel more secure in his relationship with Case, knowing that jobs will stay with the company, and that the long-term employment future is a brighter one. Both employer and employee benefit from the enhanced self-esteem of a better prepared, more confident workforce, and the resulting sense of pride is reflected in the entire company. Workers who are able to communicate coherently and effectively become partners in the decision-making processes of the company, thus breaking down barriers which may have existed in the past.

THE FUTURE OF THE CASE CENTER

The Case Employee Education and Improvement Center has already begun to meet the expectations of the partners who were instrumental in its founding. There is more to be done, however, before the arrival of the year 2000. As with all changes, particularly those which evaluate individual skills and behaviors, the establishment of the Center creates some uneasiness within the workforce. Changing expectations may be threatening to some employees, particularly those who have been with the company a number of years. Lack of confidence and long-ingrained attitudes about education may prevent those who most need these services from taking advantage of them. Fear of entering the more traditionally designed classroom may also discourage some potential students.

Continuing efforts will be made to market the Center within the workforce, including showing of a newly produced videotape, 'ask me' type buttons, and further training of peer advisors. Those students who have participated in Center programs will also be instrumental in referring others, and encouraging them to take advantage of the available programs.

The Case Employee Education and Improvement Center is a model for workplace education. By facing the challenges of the workforce of the eighties and nineties, Case will be prepared to meet the technologies of the year 2000. J.I. Case, the UAW Local 180, and Gateway Technical College--partners for success in the joint effort for workplace literacy.

THE CHANGING AMERICAN WORKFORCE - A CHINESE PROSPECTUS

MICHAL FORIEST SETTLES

America is facing an exciting period in its history. By the year 2000, the American population will be represented by more minority groups than any other time in its relatively short history. The Asian workforce will be a primary factor in this population shift. According to U.S. immigration records, 42% of new immigrants in 1988 came from Asia: This presentation will present proven strategies that can assist these new American workers.

Why the focus on Chinese Americans? According to the Wall Street Journal(1) (May 2, 1989), 41% of U.S. immigrants came from Asia (Latin America 43%) The last census (1980) indicated that Chinese Americans represented 21.8% (812,178) of the Asian Pacific Islander population, California was ranked the #1 state of residence (Georgia was 18). In 1980 over 35% (35.2) of the residents of California were Asian and Pacific Islander, the 1990 projections are already well above 50% (2). In 1980 over 63% (63.3) of Chinese Americans were born in foreign countries. Chinese American top 5 choice state residential choices are California, Hawaii, New York, Illinois and Texas (3). The 1980 census facts (about Asain and Pacific Islanders) include:

A. over 45% live in just 5 metropolitan area in 1980 (Los Angeles-Long Beach, San Francisco-Oakland, New York, Chicago and Honolulu).

B. median/age of 28.4 (median of 30 for the nation)

C. average family size 3.8 persons (average U.S. family of 3.3)

D. education is highly valued - 33% college graduates (16% total population)

E. participate in the labor force in larger proportions (67% vs. 62% for the general population

F. Chinese American family income $22,700 (national median $19,900 - effected by educational attachment and number of family members in the workforce)

G. home ownership of 52% (64% for U.S. population-ownership is concentrated in urban or western states where cost of housing is more expensive

1 Wall Street Journal, May 2, 1989
2 1980 Census of Population U.S. Department of Commerce, December 1983
3 We, the Asian and Pacific Islander Americans U.S. Department of Commerce

Robert Goddard in the February 1989 issue of Personnel Journal cites numerous suggestions for firms to initiate in preparing for the workforce 2000.

1. Move to hybrid matrix structures (project management orientation). This orientation is also stressed in Tom Peters' In Search of Excellence.

2. Skill-based pay. (Paying for the number, kind and depth of skills vs. job-based pay).

3. Leasing employees (more than 20% of the workforce are not full time employees—independent contractors, consultants temporaries, leasees and part-timers)

Mary Belfry releases an article in Employment Relations Today (Winter 1988-89), entitled "Managing the Diverse Work Force". Ms. Belfry stressed the need for organizations to review and critically assess the organization's

1. culture
2. management policies and practices
3. recruiting efforts
4. benefit programs
5. training programs

R. Roosevelt Thomas, Jr., Director of the American Institute for Managing Diversity at Morehouse College in Atlanta, coined the "frustrating cycle". The "cycle" develops when organizations do not address the cultural differences and the expectations of workers and the employer prior to employment An example is the 1988 survey by the Harvard Business Review of 50 black MBA graduates at Fortune 500 companies (all 50 felt support in words only; only 16 indicated a positive experience).

MANAGING DIVERSITY - What are some successful firms doing? The four firms below are using innovation, creativity and risk-taking that resulted in payoffs.

Nancy Woodhull - president, Gannett News Media
USA Today depends on different viewpoints in its news meetings everyday (women, minorities, young, old, Harward education, Trenton State education, etc.

Hewitt Associates (based in Chicago)
Reimburses employees for babysitting expenses when both parents ae away overnight on business

Provides maternity job protection leave

Provides child care and referral service

According to Peter Friedes, CEO, these family policies reflect not just nice things to do

Steelcase Company (11,922 employees, 2,571 women) Offers a 5 course take-home dinner service prepared in the company cafeteria and sold at cost to working parents

San Antonio-based Pace Foods
Prints its company publications in English and Spanish

Conducts its meetings in English and Spanish

RECOMMENDED KEY ACTION STEPS

*Develop a corporate statement on valving diversity

*Communicate that philosophy to the work force, the community served, etc.

*Develop and implement new strategies for recruitment and retention

*Develop and implement support systems for the new employees along with the company's employees and supervisors (training, coaching, mentoring concepts, etc.

*Keep informed of innovations in other companies, especially those in your industry (professional publications, and conferences, etc.)

*Establish a company communication system whereby all employees have a positive vehicle to communicate ideas, concerns, fear, etc. (Task Force, etc.)

*Formulate a consotion/cooperative ventures to share resources and support (training, materials, cost, etc.)

*Establish relationships with civic group (Asian Business League, Asian Personnel Association, etc.)

*Establih relationship with local community colleges, technial institute,etc. (N.V. City Transit High School)

BIBLIOGRAPHY

*1980 Census of Population, Department of Commerce, December

*OPPORTUNITY 2000 U.S. Department of Labor, 1987

*Workforce 2000 Hudson Institute, June 1987

*Wall Street Journal, May 2, 1989

*We the Asian and Pacific Islander America, U.S. Department of Commerce

CHILD CARE AS A VEHICLE FOR BUILDING A QUALITY WORKFORCE

Dr. Judy Herr, Ms. Eileen Zenk,
Ms. JoAnne Brandes, Ms. Sandy Matter, Mr. Ken Riemer

Dr. Judy Herr, University of Wisconsin-Stout

Child care is becoming a competitive issue for companies today. The reason is that women with young children are the fastest growing segment of the workforce. By 1995, it is projected that 80% of the women between the ages of 25 and 40 will be employed, and 7 out of 10 of these women will become mothers. Today, according to the Bureau of Labor Statistics, more than 10 million children under the age of 6 have mothers in the workforce. Usually these mothers work because they must. Many of these mothers experience a great deal of guilt, anxiety, and frustration over their child care arrangements. Working mothers are not the only parents experiencing these effects. Studies show that dads, too, seek a balance between work and family. Although fathers still see themselves as primarily the provider, they, too, feel the pressure to spend more time with their children.

The stress and effects of managing the dual roles of work and family have a bottom line impact on companies. Concern about children can hurt performance. A study conducted by the Family/Work Institute found that, among people with children under the age of 18, 73% of the dads and 77% of the mothers worried about them at the work place. Studies have also shown that parent employees lose concentration at work because of concerns over child care or unstable arrangements.

Employers lose when workers are stressed. Stress reduces employee energy, efficiency, quality, and productivity. Individuals, because of this dual role, have responded to the work place with increased absenteeism, tardiness, errors, accidents, increased health risk, along with decreased job satisfaction. As a result, companies are beginning to see child care makes dollars and cents (or sense).

The number of companies that offer child care assistance are increasing. In fact, it has increased 500% between 1982 and 1989. Recent studies show that employers profit by making child care available. A study conducted this year by a bank in Los Angeles found that for every $3 that they spend aiding employees with child care, $4 are saved in reduced absenteeism, staff turnover, increased productivity, and good public relations.

As an example of corporate support, Apple Computer runs an in-house child care center and provides $500 for each new employee's baby, along with adoption aid up to $3,000. IBM grants mothers leaves of up to three years, during which they continue their benefits and their jobs are guaranteed. They also provide a two-hour window for mothers to arrive and leave work.

Another study, done on 521 major corporations, found that 90% of these companies did offer part-time work. Other ways that companies are helping include allowing their employees to put pre-tax dollars aside to pay for child care, providing coupons and vouchers for child care expenses, or offering the flexible work option.

Change is also being propelled by employees themselves. This year two major unions negotiated a ground breaking contract, with AT&T providing $5 million dollars to increase the supply and quality of care for both children and the elderly. This contract also addressed unpaid parental leave and was extended from a 6 month period to one year. They are trying a new policy, giving parents a limited time where they can, on short notice, take an emergency leave.

Women are concerned about company policies supporting child care. Last weekend I was in Boston talking with a graduate student at one of the Ivy League schools and what she said to me was interesting. She said "My contemporaries and I are not just evaluating companies in terms of the return on investment. We're starting to say 'What about day care, and flex time, and part-time employment?'" She went on to say that their employers will be selected based on the support that the company provides in combining work with family objectives.

Child Care is also making hot copy because of people like this. The latest issue of Working Mother had an article on the best companies for working mothers. The first line of the article stated that "Working mothers are changing the landscape of the American work place." Ratings of the 60 best companies for women were provided. The key to obtaining a rating included pay compared to competitor, opportunities for advancement for women, support for day care, fringe benefits including maternity leave and/or paternity leave, adoption aid, flex time, part-time work, as well as job sharing.

This article no doubt stimulated the media. For example, I found an article and cartoon depicting the best companies for women while reading The Harvest, which is a weekly newsletter put out by the Harvard Business School. In addition, the same day I found an article in the St. Paul Pioneer Press.

This afternoon you will hear from panel members who are affiliated with different companies who either provide direct or indirect child care support. I will introduce each and they will give a short presentation. After all presentations are given, there will be an opportunity for you to ask questions.

Our first presenter, Eileen Zenk, is associated with Work/Family Directions in Massachusetts. A few of the companies that she provides support to include IBM, Exxon, Kodak, Motorola and Xerox.

Eileen Zenk - Work/Family Directions

A lot of us here may have heard that child care is a benefit point of the 1990s. Some statistics I would like to share with you: between the year 1985 and the year 2000 over 42 percent of new entrants into the work force are going to be women. The fastest growing segment of this population is going to be women with children under the age of six, and 73% of all working women are of child bearing age. This needs to be considered, along with the fact that employers today are facing a severe shortage as the labor pool continues to shrink as the baby bust reduces members in the workforce.

With these statistics in mind, how can a company best strategize itself to have the opportunity to hire the best and the brightest of the new employees?

As Dr. Herr stated, salary alone is no longer the deciding factor. Employees today are looking for generous benefit packages. This comes into play not only in recruiting, but also in retaining quality employees. They're looking for generous benefits and they're also looking for a family friendly corporate culture. When a company first considers offering child care benefits, the most obvious and visible option that comes to mind is an on-site center. This is a wonderful option; however, for many companies it is not immediately available to them for a number of reasons.

There are dozens of options that you, as an employer, may wish to consider. There are on- or near-site centers. Some of my fellow panelists will be talking about those.

A company might decide to offer subsidies or vouchers to assist their employees in paying for child care. They may arrange to offer a discount at a local child care center. They may decide to employ a dependent care assistance plan also known as a DECAF, which allows employees to use pretax dollars to pay for child care. They might decide to use alternative work times such as flex time or job sharing. And finally, what I'm going to be spending my time today talking about, resource and referral.

What is resource and referral? Essentially, it is a clearinghouse of all child care issues and information. There are many R & R's already established within the community. For example, in Milwaukee there is the 4-C Office of Milwaukee County, and of Waukesha County. There is Community Coordinated Child Care in Madison, and in Chicago there is the Day Care Action Council of Illinois. These agencies are staffed by experts who are aware of the local trends, issues, and needs of child care in your immediate area. They maintain a day to day listing of operating programs of both day care centers and family day care homes which, because it is occurs in a private home, is often a hidden form of care and difficult for parents to find. R and R's oftentimes offer their service to the public and therefore would be able to provide their company's statistics on the area needs.

What is resource and referral as an actual benefit to your employees? First, it's a service to your parent employee. Parents will be able to contact the agency and their local child care expert right within the agency and talk very specifically about what their needs are; their needs as far as hours, the age of the child, the type of care they're looking for, the location they want - whether near to work, home, or possibly along the commuter route.

After gathering this information, the parent counselor within the agency will offer information on the services that can accommodate the parents' needs. They also offer extensive counseling on what to look for, how to find it, how to judge the quality of child care the parent is looking at --and thus empower the parent to make an informed decision. Child care is such a new issue that most parents are not equipped to make this decision at this time. R and R's can offer parenting seminars. They are often available to come to your site and provide seminars on a wide variety of topics.

Why do companies choose R and R's as a benefit? First of all, the convenience costs of R and R's are relatively low; in fact, it is one of the least expensive of the employer supported child care benefits. It has a relatively brief development phase and can accommodate parents with very diverse needs. For example, it can accommodate parents with infants, with school age children looking for after school care, or for summer camps. It can assist the parent in locating emergency care if, for example, the provider cannot offer care that day. It can also provide information on sick child care programs in the area. We are also able to locate care for parents who are part time, or working shift hours.

Resource and referral is concrete. It is meaningful, real help to parents at the time. There is no limit to the number of employees that resource and referral can assist. It is also flexible; it adapts to the community's needs or your company's needs at that time. And finally, the utilization of R and R provides an excellent building block because they are in touch with your employees daily. They have excellent information on what your employees' needs are and thus it can be a building block as you pursue further child care options.

My company is Work/Family Directions, located in Boston, Massachusetts. We began six years ago when IBM was looking for an equitable child care benefit they could offer to their employees. We established for them a national network of resource and referral agencies. Today we are a family resource for over 40 international corporations. We have established a network of over 270 resource and referral agencies throughout the continental United States, Alaska, Hawaii, the Virgin Islands, and Puerto Rico.

We explore extensive counseling and follow-up, meaning that the parents will continue hearing from the parent counselor. The parent will also use resource and referral as a vacancy check, thus eliminating an enormous amount of the leg work. The parent will no longer have to spend the time looking for openings. They will receive information on programs that have openings at this time and thus can begin screening right away. If referrals are not available in the area that parent is looking for, individual recruiting efforts will be implemented, if necessary.

Finally, every employee utilizing our service receives information from Work/Family Directions regarding the advantages and disadvantages of the child care options they have. Work/ Family Directions has a strong emphasis on customer services - our customers are both the companies we serve as well as our employee parents. We are quality driven. Our companies will accept nothing less from us since the service that we offer is the xerox of global child care resource and referral service. In addition to child care benefits, we are also implementing elder care. Employees with elder care responsibil- ities are affected just as employees with child care responsibilities. There is no single answer to child care benefits and what you, as a company, might wish to offer.

JoAnne Brandes - Attorney with Johnson Wax
(Dr. Herr noted out that Johnson Wax is one of the top 60 companies to work for as cited in the Working Mother article.)

As an international labor attorney, it still surprises me that I'm talking about child care, but it's a topic I've gotten very much involved with. Johnson Wax has a child care center they opened in September 1985. At that time, there weren't many companies getting involved in child care centers. I can't think of a company of our size that had a child care center at that time.

Experts told us, if we're lucky, we'll probably open with about 20 children and if we have a good first year, based on our population, we may have up to 40 children in that center. We opened that first day with 77 children enrolled. We have now expanded and have well over 100 children and a summer day camp that serves another 200 plus children.

The company didn't start its child care center in 1985 because it wanted to improve absenteeism or to improve turnover problems. They've never been serious problems for the company. The company started the center because they felt it was the right thing to do for our employees and for their children, and because of that we would certainly gain in productivity.

Many of you are probably familiar with Johnson Wax. It is more than 100 years old, and privately held and owned by the Johnson Family during all of that time. Its international headquarters are in Racine, Wisconsin, and we have offices in over 50 countries throughout the world. The company has always considered itself to be somewhat of a leader in employee benefits. In 1900 it was one of the first to offer paid vacations and first to provide profit sharing to all employees.

The company has, and has had, other benefits for the family. We've offered adoption aid, we have a child care leave of absence for mothers or fathers after the normal maternity leave, we offer flexible working schedules, part-time jobs, job sharing, and also a pre-tax program that we're just implementing for child care. So, it wasn't that unusual for our company to get interested in providing child care for our employees. We see it as part of our overall employee wellness philosophy.

The company's interest in the program really started with a survey held in December 1983. Every few years, we survey our employees on every topic from "what do you think of your supervisor" to "what do you think of the food in the cafeteria." One of the items that came up, they were very interested in our company doing something in the way of child care. So, a task force was appointed by our president to look study what options we might have in child care - everything from doing nothing to resource and referral. A child care center wasn't really mentioned.

We started our work in October 1984 and did a couple of things that I think were real important. First of all, we surveyed our community. You hate to compete with the community; sometimes you can work well with the existing centers in the community. We did a survey of our community and found there were not many child care openings available and none of the type that our company indicated they wanted through our second vehicle, which was an employee survey.

We sent a second survey on child care to all employees asking them everything from "what are your current child care needs" to "what would you like to see the company do." I have a copy that you can look at and are welcome to use.

A couple of things came up from that. Number one, we learned from doing both of those surveys that it was a child care center that our employees desired most, and after a survey of our community we realized that a child care center would be the best thing for us to do. A little bit to our surprise, it wasn't the cost that was a big factor to our employees for child care. Number one, it was the quality of care for their children. Number two was having some control over the care. In a few months we put together a child care center. I don't have time to go into detail, but we do have a packet that outlines the steps we took.

We developed a structure in order to avoid liability, which was a chief concern of mine, but yet give the quality and control that our parents desired, and then negotiated a lease. We put all of that together - the whole program - leases drafted, contracts written, and then we went to our president and chairman, Mr. Johnson, presented it and said all we need are your signatures and we'll be ready to go in three months. After about 15 minutes of debate, they approved the program.

Now we are starting our fifth year of operation. We're very, very proud of the program. It has progressed much better than we had even hoped that it would. We have a hundred children, and 200 plus in our summer camp, we have a before and after school program where our employees who go to work early can drop their children off at the center. We'll give them breakfast or snack and take them to school, pick them up from school, and bring them back to the center. We thought that was important. We also have a kindergarten program because the public kindergarten lasts 2-1/2 hours and the day was quite broken up for those children, so we offer a full day kindergarten program in the center.

BEST COPY AVAILABLE

We think the program is unique in a lot of ways. We've done a lot to put all the money that is made in the program back into the program, plus the company subsidy, which is about 40 percent of the total operating cost of the center. Because of that, we put the money into staff. We feel that quality child care comes with a quality staff. If we pay the staff what they deserve rather than the minimum wage that is commonly paid, we think we'll have a quality program. We have good use of equipment. Plus, one of the very nice features is we've been able to integrate the child care center into the company and use company resources such as recreation facilities, and some of the international program. We think we're offering a very quality program. To prove that, we sought accreditation from the National Association for the Education of Young Children and received that accreditation last year.

We know the child care center has been very successful for our company. I don't have a lot of charts or graphs to show you so we can show the success in terms of reduced absenteeism or whatever. We look at the success in other ways - the very positive feedback we've received from our parents, their involvement in the program, the very unexpectedly high enrollments that we've had year after year from the day we opened the center, the reaction of candidate parents who are coming to interview for a job. We know in many cases that was the deciding factor in coming to work in Racine, Wisconsin, for Johnson Wax. Very positive publicity has been generated by the center about the company and, of course, that is very welcome and very beneficial.

We do have a number of materials we've put together for our child care center. I have some with me today, including a summary of the process we went through in putting it together, a number of articles, our survey, other surveys, handbooks, pamphlets, and if you're interested in having these give me your card and I'll send it out to you in the next couple weeks. If you have a center or are interested in starting one, please feel free to plagiarize it. We haven't copyrighted. We're so excited about our program that we're happy to help you in any way that we can.

There are many topics we could talk about, especially liability, which is one I get a lot of questions about, and financial aspects, but I think we'll have to save those for the panel. Any questions you have I'll be glad to answer. Thank you.

<u>Sandy Matter, Day Care Center Director, Marquette Electronics</u>

At Marquette Electronics, we have an on-site child care center here in Milwaukee. We are licensed today for 140 children; we have 158 children enrolled in our program - approximately 120 per day. We have part-time students, one day per week students, those that come one-half day, so we accommodate any kind of schedule. That is why we have quite a lot enrolled. In our Milwaukee company we have about 900 employees, and about 1300 worldwide.

We figured out last year that of every eight to ten employees someone has a child in the day care center. One things about Marquette, we are about two-thirds male and one-third female, so we're not the pink collar workforce that needs child care. We are a family orientated program that needs child care. As with Johnson Wax, absenteeism was not a problem at Marquette; turnover wasn't a problem. It was a family support system that we needed. That is why in 1984 we started our day care center.

I'm going to talk a little bit about money and how much everything costs because everyone asks me that. In 1984, when we were licensed for 25 children and had 1200 square feet in

the company, it cost us about $35,000 for furniture, baby beds, microwaves, toys, equipment, all the things that we needed to run our center, and it cost about $40,000 to bring down a 20 foot ceiling and put in a heating and air-conditioning system and make rooms for us. We also had to put a fire wall up in our day care center because we were attached right into the factory and that is one of the rules here in Wisconsin. Everything is concrete in our center because we are in the manufacturing plant. Then we added on some day care space, another 1200 square feet, in 1985. In 1986, we added another 1200 square feet and then were licensed for 94 children. In 1987 we added on 2400 square feet and that is where we are today. We have 7200 square feet and are licensed for 140 children.

The last expansion in 1987 cost the company $60,000; basically it was remodeling. It is not cheap to put together an on-site day care. Marquette pays start-up monies for us each time. Now, Marquette pays about 30% of our budget and the parents come up with 70%. The parent portion of the budget is what we pay out to staff - salaries, benefits, having to do primarily with staff. The 30% the company takes up is that portion that takes care of the children - food, new equipment, field trips, consumable art supplies, etc. Most other day cares run about 70% staff costs; 30% program costs.

There are a lot of things we talk about at Marquette about why we have the day care center. The biggest one I get from people that have children at the center, that have children that are eighteen years old, that have children that are 30 years old, is the work attitude and how they feel about Marquette because they are concerned about the family. The day care center is one small part of Marquette's concern for the family. They look at bringing in speakers to talk about an array of subjects for employees. There are weight training rooms for employees, we have smoking clinics, a multitude of family orientated things that we do. We also offer job sharing and extended maternity leave. We are now looking at the tax incentives for the people that use our center as well as those in the company that don't use our center but have child care needs.

One of the things you need to be concerned about is what you're going to do if your company expands. We were one building in Wisconsin and are now expanding to Florida. Our service department is moving and we're going to expand the day care down there. We are also expanding our Milwaukee company in the next 1-2 years and the day care will expand along with everything else. It's one of the options that our company has chosen. Those with multiple sights may choose other options, such as R and R. Again, once Marquette took that bite and said they're putting child care in they've decided to take child care wherever they go in the country.

[Dr. Herr noted that we began the panel with Resource and Referral, moved to two direct service - when companies provide their own direct, on-site child care. Another option -- a company contracting with a large provider of child care or providing vouchers -- will be addressed by Ken Riemer.]

<u>Ken Riemer, Vice President of Human Resources for Children's World Learning Centers</u>

It's my pleasure to discuss effective employer-supported child care with you. The purpose of today's presentation is three-fold. I want to discuss child care from a human resource perspective, I want to identify the principle concerns of parents regarding child care, I want to review how to make an employer supported child care program successful.

It's important that we understand, from a human resource perspective, that not everyone uses child care benefits at the same time. But over time, the vast majority of the workforce uses them or believes that they will use them. In my 23 years in human resources in a variety of industries including manufacturing, health care, and child care, my experience and also the research says that employees believe that child care is a vital benefit and that belief just continues to grow and grow.

Without the availability of quality child care, the mother or the father may miss work or be less focused while they are at work. Parents of child care situations are continuously trying to make arrangements. They're on the telephone, they're going out and interviewing child care providers, they're visiting, they're following up and following up. You and I know that's not getting done at 8:00 or 9:00 at night, it's getting done during the work hours and they're less focused when they have those worries on their mind.

Child care is recognized as a real benefit by a growing percentage of employees. We were somewhat amazed and enjoyed a statement in a recent human resource magazine that said 50% of male student engineers reported child care as a very important benefit, yet most of these people were not parents. The bottom line is people perceive it as a benefit they will use.

Company child care centers are the most popular according to human resource publications. Why is that so? Three major reasons. Number one, it eliminates the major difficulties for parents. Inadequate supply, high cost, inconvenient hours, inconvenient location, and unacceptable quality continues to cause duress for moms and dads, your employees, as they're trying to solve those problems.

So, when a company provides a child care program, when it subsidizes the cost, when it sets the hours, and the location, and they monitor the quality, these difficulties are overcome. Secondly, a recruiting advantage. When you have an on-site child care program, it's something you can see, smell, it's there, believable, it helps you immensely in your recruiting efforts. And finally, a sense of security. The corporation has sponsored it; the employees feel much more comfortable with that situation.

What about from a parent's perspective? Parents are looking for child care that delivers both the fundamental loving, caring environment and the extensive resources that are needed to help the children develop their fullest potential. These are not just nice words. Thorough market research says this is what is crucial to parents. This is what is on the minds of moms and dads. And when we say help children develop to their fullest potential we're not talking about babysitting here, we're not talking about day care, we're talking about quality child care. That is what the parents would like.

The major motivating factors, research has told us that these are in the order of importance as studied and interviewed with parents over the last number of years. They are looking for 1) a friendly and caring staff; 2) a warm, caring atmosphere; 3) they want the ratios to be proper, the adequate number of staff for children; 4) clean facilities; 5) a creative, well planned learning program; 6) well equipped classrooms and a well kept building; 7) they want it to be licensed by the state; 8) to have a good reputation; and 9) the qualifications of the teachers are important; and 10) convenient hours. Approximately 96% or 97% of the parents surveyed listed these as the top ten most important factors.

Why would an employer support a child care program for their employees? Through satisfying the targeted employees needs, the employer will realize less tardiness, absenteeism, turnover, more successful recruiting efforts, and more positive public relations coverage. You've heard this many times, you've read this many times. The bottom line is the employee is more productive.

Why wouldn't the employees participate? They won't participate if the quality of the child care program does not meet their expectations. They won't participate if the costs are perceived as being too high. That's why it's crucial for the employer to select the right child care company. That's why it's crucial that the proper program and the costs meet the needs of the targeted employee.

How can the employer reduce the obstacles to participation by employees? First, the employer must make a commitment to the success of the program. Next, they can mitigate their risk through the selection of the child care provider. The participation and the perception is vital in this situation.

What is the commitment? The employer must dedicate sufficient resources - time, money, personnel, materials - to establish a position of commitment that will be recognized by the employee. That's one side of the coin; the child care provider must provide a quality program. In other words, we must meet those ten factors listed earlier. Secondly, an appropriate learning environment. Thirdly, liability protection. The child care provider has to be willing to accept the liability of the program.

How does the position of employer commitment to quality child care enhance employee participation? Simply put, commitment works to identify the target group of employees - that is something the employer will do. Research the child care needs of that group - that's something the employer could do or the child care provider, or they could do that together. Commitment works to establish an employer data base to fully evaluate the impact of the child care and to identify if the employer will realize its objectives. That, too, is something the employer or child care provider can do, or both. It's crucial that goals are established, evaluation occurs, and the impact is felt. In other words, both have to do their homework and cannot rush into this. This is a very crucial decision for a corporation.

Commitment works to implement a quality program which meets the stated needs of the employee. That we can do together and also to prepare communication materials and seek opportunities which fully explain the child care program. Both must tell employees about the child care benefit to help the employer reach their objectives. Commitment also works to directly subsidize the cost of the program to make the target employee participation realistic. That is something the employer is responsible for. To periodically review the employee child care needs and adjust the program to meet those changing needs - that is something we would do together. In other words, the employers should accept shared responsibility with the child care provider for the program's success. The employers should aggressively pursue their goals through communications and continuous support to the employees.

From an overall perspective, effective child care can meet the needs of employers and employees. The employer and the child care provider each has to make a commitment to ensure a successful program. There is no doubt in the minds of all that deal in the child care industry that child care will continue to be a key benefit through the 1990's and into the 21st century.

CITIES IN SCHOOLS
"RECONNECTING THE DISCONNECTED"

ALFRED WARD

"Abstract"

This national process of public/private partnerships, in operation for over a decade, has been successful in dropout prevention in over 30 cities, Cities in Schools addresses issues such as attendance, literacy, job preparedness, remedial education, drug abuse, emotional and health problems - all of which hinder school completion and job readiness - through the development of an integrated support system for at-risk students.

Of all threats which put the nation at risk, few are more ominous than a permanent social underclass whose growth is fueled by large numbers of children at high risk of social and economic failure. Their hope to escape the bitter fruits of multi-generational poverty lies in their education. However, the forces that foster failure are frequently more powerful than the influence of the school. National statistics indicate that 30% of our young people dropout of school before finishing high school. In many of our cities, the dropout rate is closer to 50%.

Dropouts as a group are highly susceptible to drugs and delinquency. And sadly, they are all but economically dead, trapped in lifelong joblessness. Children at highest risk of becoming disconnected from mainstream society come from homes headed by single parents who did not finish school, hold low paying jobs or are on welfare. Their status typically means that they are unable to provide even the basic resources and supports necessary for the physical, emotional and social development of their children.

Typically, health and human services that could fill the gap are remotely located and therefore usually unavailable to at-risk youth. And even when they are engaged, they do not reach disadvantaged youth in a timely or coordinated fashion. Schools, where the youth's needs show up most clearly, are unable to cope with the many non-academic problems that seriously impair their performance in school. Highly motivated though they may be, teachers cannot be expected to spend more time as social workers, counselors and keepers of the peace than as teachers. Traditional educational approaches do not work for at-risk youth.

GETTING HELP IS AS EASY AS GOING TO SCHOOL

CIS is a alternative to a "stand alone" delivery of social services. A number of agencies in the city deal with the many problems impacting the at-risk youth population. But instead of expecting that a troubled child will seek help from social services spread all over the city, CIS enlists and coordinates these resources (counseling, education, health, recreation, financial, legal and employment) to deliver their services in the school.

Using local educational sites as the focal point is one of the key principles of this unique program. Schools are centrally located, easily accessible and are seen as a positive institution within most communities. Schools are also the one place where large numbers of at-risk children can be reached on a regular basis.

STRONG WORKING PARTNERSHIPS

Partnerships are required to successfully combat our dropout problem. No single institution can cure it by itself. That's why another key principle of CIS is the development of working partnerships between the public and private sectors of the city. CIS draws together leadership from the school system, local government, local human service agencies, the business community, and volunteer organizations to focus their talents and resources on the dropout issue.

HOW THE SYSTEM WORKS

Students are referred to CIS by principals, counselors, teachers, and parents. Referral often is the result of poor attendance, disruptive behavior, low academic achievement, or family problems. The students participating in CIS normally attend core classes with the other students. But, for one period each day, CIS students report to a team of professional repositioned adults who are partners in the CIS processes. Functioning as case managers, the team builds relationship with their students, sees that required services are delivered, and provides lots of encouragement.

CIS is not an educational program. However, it compliments the educational experience as counselors work with students and their families, planning field trips, putting them in touch with job opportunities, financial and legal aid, health care and housing, remedial education and, if necessary, drug rehabilitation. If a CIS student skips class, they find out why and try to do something about it. Through CIS the child, once at risk of becoming another dropout, is now a person receiving the extra attention he or she needs to stay in school and graduate. A personalized relationship is developed with each student to motivate achievement in a caring way.

PROVIDING BETTER SERVICES WITH OUT MASSIVE FUNDING

Whenever possible, staff and resources are repositioned from existing agencies. The repositioned school site teams continue to be employed by and accountable to their home agencies and organizations while they deliver their services to students in the school. The only new funding required is usually provided by the private sector to support the CIS management team which is needed to maintain coordination, training and communication among all the partners.

CITIES IN SCHOOLS IS NOT AN EXPERIMENT

CIS was initiated in 1974. Since then, it has been replicated in public schools in 33 cities though out the country. CIS, Inc. is a private nonprofit organization located in Washington D.C.. CIS has consistently demonstrated its ability to keep potential dropouts in school, to bring current dropouts back to school, to improve attendance, and to increase academic achievement.

THE CIS CONCEPT IS BASED ON THREE PRINCIPLES

1. COORDINATION:

*working partnerships between the public and private sectors for governing and funding the system
*the use of schools or alternative education sites as the field of action for the coordinated, integrated delivery of human services
*repositioning of staff from existing human service agencies and volunteer organizations to more effectively provide support for at risk students

2. ACCOUNTABILITY:

* development of coordinating structures built around small, accountable and personalized delivery units of multi-disciplinary teams of teachers and social service professionals

3. PERSONALISM:

* personal relationships made possible by the collaborative arrangement is the single most important factor in the success of CIS intervention systems (When teachers, social workers and counselors work as teams with the same group of students daily, they increase the chances of identifying and responding quickly to needs that are impediments to the education of at-risk students. Acting as caring families with access to resources, they are able to facilitate positive changes in student's attitudes, behavior and performance.)

THE MISSION OF CITIES IN SCHOOLS

CIS acts as a catalyst in assisting communities reorganize their educational and human service delivery around a collaborative model in the schools. Through the power of CIS partnerships, communities are able to leverage the repositioning of human service providers to work alongside teachers as intervention resources to assist at-risk youth in overcoming barriers to education.

CIS OBJECTIVES

*improve at-risk students' school attendance
*enhance their personal, educational and social development
*improve their employment attitudes and skills
*increase parental involvement in their education
*increase positive behavior
*assist the schools' ability to address the needs of their students in a wholistic manner

CIS MODEL

*a city wide board of directors composed of leaders from education, local government, the private sector and human service organizations

*a management team, hired by the board of directors, consisting of a director, an agency coordinator, a project director/trainer, and an administrative assistant

*education site project teams composed of repositioned staff and coordinated by the project director/trainer

If the at-risk population of students can be retained in school and prepared for gainful employment, the benefits are three fold:

*the tragedy of wasted lives will be averted

*public assistance costs will be reduced

*employers will gain a pool of entry level employees

The Cities in Schools process not only creates partnerships to support high at-risk students but it is also a process of systematic change. The process improves the way social services deliver their services, the way communities and social services interact with schools, the way social services function together at a common site, and the way a city in collaboration addresses a whole range of common problems. The Cities in Schools process introduces the here-to-fore missing link for successful partnerships, the neutral third party. The addition of a small management team that represents all partners and sees that the interests of each participant satisfied. Cities in Schools is truly a process that "Reconnects the Disconnected"!

Developing Instruction For Workforce Literacy Programs

Jorie W. Philippi

Developing Instruction for Workplace Literacy Programs

Job-specific reading, writing, and computation tasks require different applications of basic skills from those which are taught in traditional adult basic education classes or other academic environments. To prepare society's rapidly growing number of intermediate literates (i.e., those who read at about the 6th-7th grade level) for entry-level employment, improved job performance, retention, and potential promotion, training programs are needed which teach basic skills in the context of job tasks. These special workplace applications of basic skills are generic to many different occupations. They include:

- job reading processes for locating information and for using higher level thinking strategies to problem solve,
- occupational writing process for organizing clear, readable writing, and for mastering those thinking skills which enable analysis, elaboration, and extension of written ideas, and
- workplace applications of mathematical process for calculating information and solving problems that go beyond basic number concepts and enable workers to acquire proficiency levels in reasoning and interpretation.

Why should basic skills be taught in job task context?

Teaching occupational application of basic skills with actual job materials helps workers see that the purpose for basic skills instruction is to achieve job proficiency. They experience a direct transfer of the reading, writing, computation, and problem-solving skills they learn to their job performance (Sticht, 1975). Normally, these adult learners have not achieved academic success from the years of exposure they have had to general skills development within a traditional education approach. Programs are long, drop-out rates are high (Darkenwald & Gavin, 1987), and translation of academic progress to improve work performance is minimal (Sticht etal., 1977; Diehl & Mikulecky, 1980; Mikulecky, 1982). For these reasons, successful workforce literacy programs need to focus on literacy tasks that workers encounter regularly on the job. And the measure of program success is not in terms of grade level gains of GED test scores or other academic achievement statistic -- it is determined instead by the amount of postprogram improvement in job performance demonstrated by participating employees.

Developing program of job literacy training that is built from the charts, manuals, and processes that workers use to perform tasks ("contextually functional curriculum") ensures that the instruction will be meaningful to employees in terms of what they are already familiar with, i.e., their jobs. Using the existing "mental hooks" (schemata) derived from their work environment and experience to attach new information helps ease the incorporation of new knowledge into the old (Shoemaker, 1967; Fingeret, 1984; Farr, Carey, & Tone, 1985; Valentine, 1985). And, having the opportunity to practice the newly learned skills on the job every day in the same context in which they were taught helps workers retain new skills and continue to use them. If, in fact, workers have successfully learned the job-related basic skills presented in an effective workforce literacy program, the results should be evidenced in higher job accuracy, productivity, and employee retention/promotion figures, along with lower accident rates.

How are on-job applications of basic skills identified?

Prior to selection of job-related basic skills to be included in a workforce literacy program, trainers and educators need to observe employees perform workpalce tasks and to gather workpalce materials for use in the development of curriculum which should simulate key basic skills and problem-solving tasks that workers face on the job (Drew & Mikulecky, 1988). This observation/data collection procedure is called Literacy Task Analysis (LTA). Similar to traditional job or task analysis, LTA is a method that is used for identifying the aspects of job tasks which require reading, writing, computation, and problem solving.

The trainer or educator who conducts the LTA will need to spend approximately 0.5 - 2.0 days at the worksite, and may require time for a follow-up visit to clarify findings or to obtain additional materials and information. Positions targeted for analysis should be those at entry-level or promotable/mid-level. The LTA procedure should contain the following elements:

Plant Visit

a. Brief interviews with management (plant manager, personnel director, training director, union official, etc.) to facilitate procedure and build support for the program.

b. Plant tour to familiarize analyst with general activities, locations, and personnel.

For <u>each worker</u> interviewed:

c. Interview with worker's direct supervisor.

d. Interview with worker to determine a competent worker's thinking processes for performing job tasks.

e. Observation of worker on the job doing key basic skills tasks.

f. Gathering and photocopying printed materials.

Optional: Photographing or video-taping worker performing job tasks.
(Adapted from Drew & Mikulecky, 1988.)

How are workforce literacy instructional materials developed?

Effective instructional materials are derived directly from the job task. After the LTA has been conducted, the collected materials and interview notes acquired during the plant visit must be further analyzed. This analysis of job-related basic skills is done at the task level because a task is the lowest level of behavior in a job that describes the performance of a meaningful function. The basic skills application task is described in terms of performance behaviors on work activities. To develop job simulations and exercises for instruction, the following procedure is recommended:

Analysis of information from plant visit:

a. Review of collected printed job materials and interview notes to become familiar with work materials, activities, environment, tools, procedure, and job performance goals.

b. Screening of printed job materials and interview data for problematic tasks for workers that are also necessary to perform the job.

c. Sequencing and prioritizing of tasks selected for instructional materials development, i.e., determining difficulty, frequency of use on the job, etc.

d. Breaking down major tasks into steps, substeps, and single behaviors, identifying basic skills embedded in each.

e. Analyzing each task behavior to determine what facts or concepts workers meet to know or learn in order to perform it.

f. Categorizing the job tasks by the basic skills applications needed to perform the tasks.

g. Collating printed job task materials with basic skills applications that have been identified; selection of job materials that an be used intact, modified, or simulated to provide a vehicle for teaching the basic skills as they are used ton the job.

h. Developing structured job simulations of increasing difficulty (containing basic skills applications) from job materials. (A minimum of five simulations or exercises should be developed for each job task to be taught: one for the instructor to model, one for students to try out while learning, and three for student practice to reinforce learning. These simulations may encompass an entire job task or be developed to instruct isolated subtasks. They also may be used as pre- and posttests for the instructional program.)

i. Selection of supplemental commercial materials and/or development of subtask skill exercises to complement key basic skills instruction with created job task simulations (Philippi, 1988).

It is important to note that it is not the job tasks themselves that are to be taught, but rather the basic skills needed by a worker to accomplish the tasks on a given job. The instructional design of the curriculum should emphasize information processing. The focus of instruction should be on showing employees how they can perform the processes, on learning how to learn (Laster, 1985). By breaking processes into procedural steps and by providing direct instruction in thinking strategies, the curriculum enables employees to develop self-questioning and mental activity-monitoring patterns (metacognition) which help them become independent learners who can recognize and correct their own processing errors. [See **Figures 1,2, & 3** for typical job task applications of reading, writing, and computation that emphasize information processing.]

Who should develop instruction for workforce literacy programs?

The most critical element in the development of basic skills training for the workplace is the ability to achieve the appropriate integration of job-specific tasks and traditional educational skills instruction. Developing and successfully implementing curriculum that uses job knowledge to teach employees how to learn as it increases their ability to perform those basic skills applications embedded in their current job tasks is a highly specialized and newly defined area of training expertise. It combines the fields of employment training and education; and, it requires a rather sophisticated knowledge both of educational theories

of remedial instruction and of job performance procedures. Instruction may be developed by an in-house training staff, educational vendors, community-based schools, or special-hire teachers who have received pre-training on job materials. Employment training professional have the advantage of familiarity with job tasks and materials, but may lack the educational background in instructional strategies for teaching basic skills to adults. Professional educators should be capable of developing well-designed curriculum, but are likely to be deficient in technical and practical knowledge of the tasks and materials used for job performance. Whichever instructional development path an organization decides to take to provide workforce literacy training, it is important to recognize that some pre-training and preparation for program developers and providers is a necessary step to ensure that what results is an effective instructional product for meeting organizational workforce needs.

Summary

Workforce literacy is not able to be defined in terms of attaining a specific reading grade level or mastery of a finite list of discrete basic applications which are used in the context of job tasks. Because constant advancement of technology and reconfiguration of business and industry structures cause job tasks to be "fluid," it is important to view workforce literacy programs as an on-going, integral part of employee training. [See **Figure 4**, Workforce Literacy Training Model.]

Effective workforce literacy programs are those which are designed to meet the needs of the organization and the worker by successfully translating learning into improved job performance. Creating instruction for such programs requires expertise from the combined fields of employment training and education. It is the product of 1.) literacy analyses of job tasks and 2.) construction of curricula form analyses data, that focus on helping workers master those basic skills applications they use on the-job. Workforce literacy program results should be evaluated by measures of (increased) job accuracy and productivity, (higher) employee retention/promotion figures, and (lower) accident rates.

References

Darkenwald, G.G. and Gavin, W.J. (1987). Dropout as a Function of Discrepancies Between Expectations and Actual Experiences of the Classroom social Environment, **Adult Education Quarterly**, 37, (3), 152-163.

Diehl, W.A. and Mikulecky, L.J. (1980). The Nature of Reading at Work, **Journal of Reading**, 24, 221-227.

Drew, R.A. and Mikulecky, L.J. (1988). **Literacy Task Analysis Practitioner's Guide: How to Gather and Develop Job-Specific Literacy Materials for Basic Skills Instruction.** Prepared for the Basic Skills Work-Education Bridge (WEB), Project No. 305-87-4700, Indiana State Board of Vocational and Technical Education, Indianapolis, IN.

Farr, R., Carey, R., and Tone, B. (1985). Recent theory and research into the reading process. Implications for reading assessment. In J. Orasanu (ed.), **Reading comprehension: From research to practice.** Hillsdale, NJ: Erlbaum.

Fingeret, A. (1984). **Adult Literacy Education: Current and Future Directions**, 9-13. ERIC Information Analysis Papers, IN-284.

Greenan, J.P. (1983). **The Development of Strategies and Procedures for Assessing the Generalizable Skills of Students in Secondary Vocational Programs: Generalizable Mathematics Skills. Final Project Report.** Prepared for the Illinois State Board of Education, Department of Adult, Vocational, and Technical Education, Springfield, IL. (ERIC Document Reproduction Service No. ED 248 323).

Laster, J.F. (1985). Toward Excellence in Secondary Vocational Education: Using Cognitive Psychology in Curriculum Planning. Information Series NO. 297. Columbus, OH: National Center for Research in Vocational Education, Contract No. 300-83-0016, U.S. Department of Education, Washington, D.C. (ERIC Document Reproduction Service No. Ed 254 656.)

Mikulecky, L.J. (1982). Job Literacy: The Relationship Between School Preparation and Workplace Actuality, **Reading Research Quarterly**, 17, 400-419.

Mikulecky, L.J. 1982 Functional Writing in the Workplace. In L. Gentry (ed.) **Research and Instruction in Practical Writing**. Los Alamitos, CA: SouthWest Regional Laboratories.

Mikulecky, L.J., Ehlinger, J., & Meenan, A.L. (1987). **Training for Job Literacy Demands: What Research**

Applies to Practice. University Park, PA: Penn State University Institute for the Study of Adult Literacy.

Philippi, J.W. (1988). Matching Literacy to Job Training: Some Applications form Military Programs, **Journal of Reading, 31**, (7), 658-666.

Shoemaker, H. (1967). **The Functional Context Method of Instruction** HumRRO Professional Paper No. 35-67. Alexandria, VA: Human Resources Organization.

Sticht, T.G., Fox, L., Hauke, R., and Zapf, D. (1977). **The Role of Reading in the Navy NPRDC TR 77-77**. San Diego, CA: Navy Personnel Research and Development Center.

Valentine, T. (1985). **Adult Functional Literacy as a Goal of Instruction.** A paper presented to the American Education Association, Chicago, IL.

CREATING A MULTI-COMPETENCY WORK FORCE FOR THE FUTURE

ROGER A. GERARD

Northern Michigan Hospitals has, for the past three years, been working toward a multi-competency approach to staffing a complex organization delivering hospital health care services. This presentation details the effort at Northern Michigan Hospitals, outlines various definitions of multi-competency approaches, discusses examples of cross-functional staffing within a hospital setting, and details how Northern Michigan Hospitals accomplished it's results. In addition, it describes the benefits enjoyed by NMH due to its multi-competency efforts, as well as some of the problems that were encountered and how these problems were addressed.

Definitions: Multi-competency-employees generally tend to be employees who meet one of the following four descriptions:

1. Employees who are in training for one job competency while working in another unrelated area;
2. Skilled workers being cross-trained in related but in different job families;
3. Workers with similar jobs and job functions consolidating across departmental or divisional lines or;
4. Workers whose jobs are being enlarged, expanding the scope of limited job functions to include new and unrelated skills.

The multi-competency effort at Northern Michigan Hospitals included examples from all four of these areas.

NMH Profile:

Northern Michigan Hospitals is a 300-bed regional referral center in a rural area in the northern lower peninsula of the State of Michigan. NMH is a highly participative organization with non-unionized employees. It's located within a resort community and experiences wide variations in business volume, from approximately 130-250 beds during low census periods up to 150-275 beds during peak census periods. Previous to the multi-functional initiatives, training efforts were fairly limited in nature and included tuition reimbursement at 50% of educational costs, routine job postings of available positions and generalized encouragement from management to go after positions that were attractive to employees. Overall, the philosophy could be phrased as "too little, too late" in our efforts to accomplish strategic objectives through promotion and staff flexibility.

However, as a result of our intiatives, we now have many examples of staff throughout the organization who are presently cross trained. These examples include:

- training of transportation clerks for dark room and angiography functions in our radiology and x-ray departments;
- obstetrical unit clerks have been trained as notaries;
- store room staff are cross trained to be able to carry out responsibilities in central supplies as well as stocking;
- dietary aids are cross trained to laboratory functions, phlebotomy and positions as unit clerks and transporters;
- our electricians have been cross trained to support construction staff and pneumatic controls engineers;
- our mechanic has been trained as a locksmith;
- and in the security area, staff are being used, as available, for functions such as painting and general maintenance duty.

In addition, through our multi-competency training, we have been able to expand our central transport function itself to include more areas throughout the hospital organization. Our Mental Health Unit has cross trained nursing staff to do EKG and phlebotomy duties. Housekeeping staff have been cross trained to do patient assistant duties and dietary aid functions. Overall, much cross training has been achieved during the last three years in our organization.

How was this accomplished? Initial efforts took the form of a task force call "Training for Advancement and Productivity" (TAP). This was a senior management task force that saw its function as driving the cross-training effort through the

BEST COPY AVAILABLE

organization. This committee failed miserably. As we learned later, cross training and multi-functional approaches are best cultivated as a "bottom-up" function in the organization, where people can seek training to improve themselves, to add to their job security and to grow professionally in the organization.

The real catalyst for multi-functional approaches at NMH was our Gainsharing plan. Gainsharing taught our organization that the business side of the business was important, that it was crucial for every employee to contribute to gainsharing and that the employee got something in return for that contribution. That raised awareness among employees regarding the need for productivity and efficiency improvement and raised everyone's attention to self improvement at the same time.

The TAP task force did accomplish some things. It created a "job jar" function which is now managed by the Human Resources Department. The job jar is available to all employees with extra time on their hands who want to ensure a full paycheck. In addition, the TAP task force identified areas in which it was appropriate and proper to consider cross-training activity as a formalized employment activity. Beyond that, the committee met frequently but felt powerless to bring about any changes, until employees began doing it themselves.

In addition to TAP and Gainsharing, the job posting process was accelerated, so that every employee received a posted notice of available job positions. Prior to TAP this was not occurring. In addition, a second employee task force was created to begin the discussion of a "full employment" philosophy (no layoffs). Because of use of something called "adequate staff days" (one day layoffs), employees were highly sensitized to the fact that they could be given a day off without pay. The Full Employment Task Force suggested a no layoff philosophy in the organization, and wrote the language for such a philosophy, but that philosophy statement had conditions. One of the conditions was a willingness on the part of employees to cross train and therefore be used cross functionally for various job duties. For instance, if we had excess capacity in our sterile processing unit, rather than sending staff home with a short pay, we would use them for taking inventory or stocking shelves, or whatever. That, in fact, is what happened and that became the catalyst for a major multi-functional approach. Employees "drove" it, through their need for predictable paychecks and their need to work on a consistent basis without layoffs.

In addition, many departmental incentive systems began to naturally occur, encouraging people to become more flexible and more useful to various departments. Nursing established a bonus point system which was designed to encourage more RNs to work cross shift and cross functionally than had been previously experienced in the institution. Overall, as employee understanding of the effort increased, the program accelerated, and literally drove itself.

We have realized many benefits from this effort. These include a highly improved retention of trained, highly-competent employees. Our turnover rates at Northern Michigan Hospitals is around 8 - 9% in most functions and 11% within the nursing function, which is markedly lower than the turnover experienced nationwide. We also have a heightened ability to "stretch" staff, rather than add personnel for short-term needs - more self-sufficiency. We have heightened staff satisfaction and challenge, creating higher levels of job security and this has been reflected in an annual employee opinion survey that is conducted in our organization. We are showing signs of much improved teamwork as a result of people knowing more about one another's jobs and departmental requirements. And probably most significantly, we are able to put more nurses at the bedside while other non-nursing support personnel take on duties that RNs need not do. We have improved planning and pacing of the work throughout the organization because of the expanded knowledge base, and our quality has improved measurably. We have larger pools of trained, experienced staff to cover for time off, and we have created, through this effort, more promotional advantage for cross-training staff. We have promoted people from the laundry area into the sterile processing unit because of their cross training. We have promoted people out of dietary into the laboratory because of their cross training. And we have more opportunity to create full-time positions for staff, where in the past we would have had two or three or four part-timers working part-time positions. We have increased flexibility among staff through better understanding of one another's jobs throughout the organization.

These effects have created many success stories in the organization. It is important to look at the results. Because of cross training, we saved approximately 60 percent of our construction costs for a major building renovation project. These construction costs were saved because our own staff, internally, through their cross training, were able to handle the project themselves, rather than forcing the organization to go out and get external construction staff. We have improved

relations between the hospital and the adjoining clinic organization because our cross-trained staff have improved ability to serve our physician population. The cross training in our Mental Health Unit, where nurses are handling phlebotomy and EKG duties, has moved nursing staff from a position of resistance to change to that of "embracing" change. Nurses there now would not have it any other way. Our housekeepers feel more part of the clinical team on the floors, particularly in our OB, Peds, and NICU areas where they were used as a pilot group for training housekeepers to do some of the patient care functions. A dietary assistant who went through comprehensive cross training within our dietary department, and, in fact, some of the floor responsibilities, later left the organization and became a dietary supervisor in another facility, and then became dietitian of the year. She attributed that award to the supervisor of our dietary department and that supervisor's willingness to let her learn new skills and new abilities within the department. Our nurses are reporting more time at the bedside.

Considerations:

There are many considerations in implementing a multi-competency work force in your organization. These considerations result from experience and need to contribute to the central premises in any comprehensive program.

1. First of all, go slow and don't force the process. Let the process drive itself through employee interest and need.

2. Pick the right jobs. Make sure you choose jobs that are conducive to cross training, perhaps jobs that have relationships to one another or that utilize skills that have some overlap or crossover to other positions.

3. Pick the right people. Multi-competency training is best done with people who are capable of handling multiple responsibilities and are able to juggle and balance calendars, schedules and concepts.

4. Let employees lead, managers are helpers. The process should not be driven through the organization, it should be led. Any effort to force this will be seen as management tactic to get people to work harder, and all of the value of multi-competency efforts will be lost.

5. Get rid of "killer phrases". It was very common early in this project to hear statements like "It cannot be done", "We tried before", "It ain't in the budget", "It's not logical", "It doesn't make clinical sense to have non-clinical people doing clinical things", etc., etc., etc. These are all killer phrases, every one of them patently untrue. We had brain storming efforts where we collected lists of killer phrases, and then we invited people to draw big "Xs" through them, and it became great fun.

6. Watch for "false laws". It was very common for managers or supervisors or even some employees to say "We cannot do that because it's against the law, or against policy or against some kind of state regulation". When we went back and investigated, we found out again that this was patently untrue. There are many false laws out there governing what we do and how we do it. In people's minds they are very true, but they are without substance.

7. Finally, recognize that this takes time. Multi-competency work forces are not something that can be put in place over night. In fact, you have probably a two-to-three year progression of activity before it's successful.

We encountered some problems in our efforts to create a multi-competency work force. These problems included accountability problems. When people have multiple competencies they sometimes had multiple supervisors. Who is responsible for the employee? In which piece of the job? It is important that very clear lines of authority and accountability are created and well communicated to all impacted people. Also some functions can "drop through the cracks". When you begin combining functions and eliminating single function jobs in favor of multiple function jobs there are times when some of the hidden functions that people perform, or the subtle things that people do, drop right out of the picture. We found this when we merged the transportation functions from three or four different departments into one transportation function. Sometimes, in addition to transporting patients, radiology transporters would do some of the radiological filing or would handle some of the film work in radiology. Once they were part of a large transportation function, there was no longer anyone within the radiology department to do some of these "hidden" functions. That meant that the radiology department had to reorganize itself so that those functions got taken care of.

People sometimes overstep their boundaries. Once you cross train someone and turn them loose in the organization they begin seeing

BEST COPY AVAILABLE

new connections and new ways of thinking and new ways of doing things. There are times when they wish to do more than the process or system intended them to do. Within reason that is all right and is, in fact, desirable behavior. But it can be allowed to go too far. There are certain things within a hospital setting that only an R.N. can do, and just because a unit clerk is cross trained to do some of the patient care functions, like bed baths or back rubs, it does not mean that they are capable of doing some of the more clinical things that R.N.s have been trained to do.

Multi-functional staffing requires multi-functional training. That means the organization must make a commitment to training staff. It also means time away from work, and budget dollars. That means commitment. Another problem is peak time availability. Multi-functional training and staffing works best between the peaks and the valleys of the work flow rather than at the peaks and the valleys. At peak times everyone is demanding the same group of people who have been cross trained, and there isn't enough talent to go around. At the valleys, everybody has more time than they have work and is trying to move their cross-trained people to another cost center. The real value comes during the 80 percent of the year when you are between the peaks and valleys and there is lot of room to move people from one function to another.

One problem encountered is the loss of competent people from one area to another. Cross training opens people's awareness up to other possibilities - other departments, other cost centers, other functions and so on. This awareness creates movement of staff from one department to another in the normal progression of careers. Because of that some departments, like dietary and housekeeping, find themselves continually replacing competent talent and therefore become "feeder" departments for other more technically trained departments. There is also increased pressure on managers to manage the business as a result of cross training. Managers need to increase their flexibility, reduce their reliance on policy and procedure and must take each situation one situation at a time to determine what is in the best interest of the customer (in our case the patient) and what's in the best interest of staff.

Early in our cross-training efforts it seemed to some employees that we were "dumping" on them, asking them to work harder rather than giving them an opportunity to grow. These perceptions must be met early on with the commitment to employees to move at their speed, and in ways in which there is a perceived value on the part of the employee.

There are pay issues with cross training. It has to be determined somewhere along the line how people are going to be paid for working across several functions, particularly in systems where the job functions are within a very formalized, structured pay system. Do you pay the individual at the pay rate for the highest level of task or job being performed, or at an average of the highest and the lowest, or at the lowest rate? These kinds of decisions should be made on the basis of organizational/cultural dynamics and philosophical positions. In our organization we elected to pay people at varying pay rates, depending on what kind of task or function they are accomplishing, but again this varies from manager to manager, and very often there are exceptions to this position based on deals that are cut between managers and employees.

When you get into multi-competency structures, you begin opening people's awareness to larger systems and procedures, and, in some areas, turf issues go away and in other areas they rear their ugly head. This causes much conflict but also value to the organization. In addition, if everyone wants the same talent at the same time, that means planning has to take place. People sometimes begin the planning process in the wrong place, generally with the schedule instead of the competencies themselves.

Multi-competency training causes many people to be doing many of the same things more so than in the past. This is valuable, but it also causes people to begin wondering where they fit in and how important they are in the grand scheme of things. This blurring of roles needs to be addressed through very clear communication between managers and employees about who is accountable to whom, who is responsible for what and what is their specific role in the organization. The more this kind of communication takes place, the less stress people experience.

CREST: A Pilot/Demonstration Project For Prevocational Literacy Skills Instruction To Urban Adults

CARIDAD DEPAOLA

ABSTRACT

CREST-The Center at Rutgers for Educational Skills Teaching-addresses the national crisis of poor adult literacy skills which prevent economically disadvantaged minorities from entering vocational training. Poor literacy skills also cause the adults to fail literacy skills tests necessary to obtain employment upon completion of vocational training.

CREST addresses these problems by:

1. Providing an innovative research-based program of literacy skills in reading, writing, thinking, oral communication and mathematics for economically disadvantaged adults.

2. Providing instruction and support activities in areas other than literacy skills designed to enable participants to function effectively once they have acquired the literacy and vocational skills necessary to enter the labor force.

3. Offering courses to prepare teachers of literacy skills to function effectively when instructing prevocational economically disadvantaged adults. Enrollment in the course, Teaching The Adult Learner, is open to instructors from industry and community service organizations. (There is a tuition fee for instructors sent by private industry.)

4. Providing means for on-going cooperation and articulation among education, business and industries, government and community agencies to address the literacy skills problem as related to economically disadvantaged adults entering vocational training.

There were several underlying factors and assumptions which impacted upon the type of instructional program and environment being developed and implemented by CREST to meet the literacy skills needs of its intended population needs for adequate skills to qualify to enter vocational or apprenticeship training programs or to pass tests required by employers hiring for entry level positions.

The data which formed the basis for the conceptualization of these factors have been acquired through:

1. Statistics from school districts, employers, unions, CREST intake forms and community agencies regarding the levels of reading and math achievement.

2. Qualitative data obtained by CREST administration in informant interviewing conducted with urban minorities participating or desiring to participate in vocational or apprenticeship programs, and potential trainers or employers (principally) human resource staff.)

3. Extensive experience by CREST personnel as educators of urban adults, as researchers in the field of educational anthropology and as teacher trainers.

Factors taken into consideration in the development of CREST include the following:

1. Potential program participants have generally completed at least tenth or eleventh grade with a large majority having graduated from high school or received a G.E.D. diploma. They are aware of their own weaknesses in reading and math for several reasons including inability to comprehend every day reading materials, failure to pass tests for entry level jobs or failure to pass tests required to enter vocational or apprenticeship training.

2. The majority of the potential program participants experience frustration over their inadequate skills because they had been passed in their classes despite inadequate performance and often after extensive involvement in remedial programs.

BEST COPY AVAILABLE

3. Potential program participants generally exhibited poor self concepts stemming from school tracking systems which early on had caused them to perceive of themselves as "dumb" or "stupid", low teacher expectations resulting in students feeling inadequate, constant track records of not being hired from jobs or not functioning well on the job when hired.

4. Many potential program participants who had participated in vocational training programs were often given remedial classes for literacy skills which they dropped because teacher attitudes and approaches were humiliating and made them feel like "little children." Such feelings were also prevalent among adults who participated in G.E.D. and A.B.E. programs. In addition, students with experience in both types of programs indicated they sensed teachers were racist and exhibited insensitivity to who they were, their values and lifstyles.

5. A survey of programs teaching literacy skills to adult populations revealed two approaches used in hiring teachers. Since most A.B.E. and G.E.D. programs require state certified teachers and since the state of New Jersey does not have a category for certification of teachers of adult education, most programs hire teachers with elementary education certification.

Assumptions of CREST administrators and faculty which also contributed to the program planning and implementation included the following:

1. According to the human resources director of one nationally known company located in Newark. Three hundred graduates of the 1988 graduating class of one Newark high school were tested for entry level clerical positions. Only seven of the three hundred tested were reading and doing math at the seventh grade level required of beginning level clerks. In structuring its program, CREST assumed that in a normal class, most students should be able to read and do math at a seventh grade level. Our approach, therefore, was to utilize a structural approach rather than just the strictly psychological approach used to seek solutions, to problems of economically disadvantaged urban minorities. The thrust of education has been a psychological approach of explaining individual failure in terms of the individual's weaknesses rather than to examine the impact of the school system in which the individual must function upon that individual.

CREST assumes that if our schools are graduating barely literate adults, we must examine the nature of the education they receive as we seek to improve academic achievement.

2. CREST assumed that individual academic achievement will increase in a motivational environment where students can begin to feel positive about themselves. Students, particularly adults, will be motivated to learn where the learning seems relevant and purposeful.

3. For learning to be purposeful, curriculum and instructional methodologies must be geared to adults and the world in which they live.

4. Teachers from middle class backgrounds must exhibit sensitivity to the cultural backgrounds of the lower social world in which they live.

5. Newly acquired knowledge and recent learning and instructional theory make it imperative that teachers don't teach as they were taught, but instead acquire instructional skills that assure that their instruction is effective in enabling adults to learn.

6. Success for economically disadvantaged adults in today's job market necessitates not only literacy skills and vocational skills, but also the ability to think and solve problems both outside and at the workplace and to be able to communicate and interact effectively with fellow workers and job supervisors.

The educational component of CREST was developed to include learning experiences and a learning environment that address the issues discussed previously under factors and assumptions:

1. All teachers in CREST were recruited on the basis of personality, motivation, sensitivity, willingness to innovate and be flexible in teaching behavior and curriculum development, and above all-- willingness to work hard to make a difference.

Most CREST instructors have at least a Master's degree. Prior teaching experience and certification were not required because teachers had to complete a 30 hour course in "Teaching the Adult Learner" later to be offered to teachers of adults employed by industry and community agencies). The course content is devided into two categories. The first,

"Role of Minority Groups in American Society," is heavily oriented toward anthropology and sociology concepts with an emphasis upon understanding the structural as well as psychological approach in trying to provide effective learning experiences.

The second part entitled, "Effective Teaching and Learning With Adult Populations," includes theories of characteristics of adult learners, effective instructional techniques for adults and application of Madeline Hunter's model for effective instructional behavior.

Listed below are the objectives for teachers taking the course:

a. To develop the ability of teachers to analyze the problems of economically disadvantaged adult from a structural as well as psychological perspective.

b. To develop an understanding of cultural dynamics with emphasis on the problems of acculturation and the school as a agent of socialization (enculturation, acculturation).

c. To develop the teacher's sensitivities to his/her own cultural values and the subsequent impart of these values on relations with economically disadvantaged adult learners.

d. To identify the characteristics of adult learners with specific emphasis upon economically disadvantaged pre-vocational populations.

e. To know how adults learn.

f. To identify necessary skills for effective instruction of economically disadvantaged adult populations.

In addition to initial training, teachers have a weekly team planning period in which curriculum materials and effective instructional procedures are developed and later assessed.

2. To help build positive self-concepts, in addition to positive and encouraging attitudes exhibited by instructors, life skills seminars and group counseling periods are planned to address issues in the students' lives which may prevent them from achieving academically. In response to input from human resource personnel, personal behavior problems (such as reacting to authority tardiness, dealing with racism and sexism) which may adversely affect job performance are also addressed in seminars and counseling.

3. The program began without one textbook for teachers to use. The word "remediation" was not to be used. Teacher approaches were to be positive and reflect confidence in the ability of students to achieve.

In addition, curriculum content is based upon materials related directly to the students own lives, their relationships with family and friends, and their eventual world of work.

4. Instructional goals involve content as well as basic reading, writing, communicative and thinking skills integrated into each lesson. Classes involve small group activites, students sharing work and ideas as well as laboratory learning situations. Provisions is made for periods devoted to individualized instruction with college students in a tutorial capacity assisting instructors.

Currently, faculty is assessing all curriculum material and instructional approaches with the hope of developing an instructor's manual and collection of effective and relevant reading material for pre-vocational adult populations requiring literacy skills instruction.

Mathematics instructors are cooperating with the language team in presenting math in a non-threatening way and utilizing life experiences to develop math comprehension as well as math computational skills.

5. CREST is a program that focuses on individual growth and development over the lifespan that has implications for learning opportunities at each stage of life. Adults must cope with their personal and career renewal, their changing sexuality and their reaction to aging.

School shapes the early lives of young people. For many, school influences self-esteem and competence; and work is essential to economic survival and personal fulfillment.

The New York Times article, September 25, 1989, "U.S. Jobs' Disaster' Work Force Unqualified to Work," stated that population statistics and new research suggest that "American schools are graduating students who lack even the skills needed to fill existing assembly line jobs." The article also points out that in the future jobs will require even more technical knowledge and problem solving abilities, and employees will also have to better prepared to interact with customers. This indicates a need for our

BEST COPY AVAILABLE

students to be able to communicate and develop competencies in working with others, in searching for jobs, in applying for jobs and in presenting a positive image.

CREST is an attempt to close the gap between the educational and work lives of individuals. CREST staff members are sensitive to the multiple obstacles that the disadvantaged population face to achieve a decent life and labor market success. These obstacles range from poor education, lack of income, small children to care for, lack of experience in either securing or holding a job to health problems.

These obstacles "are often accompanied by a low sense of confidence, an eye quick to spot defeat and, sometimes an unrealistic notion of the time and effort required to achieve self-sufficiency." One of CREST's goals is to provide instruction and support activities in areas other than literacy skills. CREST will cover a broad mix of services and support, mostly individually tailored, in order to develop individual competencies.

Because these support services may mean the difference between success and failure in their future career training. The Life Skills Workshop involve participation by CREST Staff Role Models, Employers and most important by the students themselves. Each workshop or group counseling will utilize student interaction techniques. The interaction will allow for individual students experiences to be used as a learning tool. Adult learners learn more effectively when they can relate concepts of learnings to their every day lives.

The life skills workshops will involve:

a. Motivating CREST students to the importance of the development of long and short term goal.

b. Developing a positive self concept.

c. Developing attitudes and behavior necessary to cope with stress and conflict.

d. Developing interpersonal skills for group participation and in the labor force.

e. Developing ability to understand the impact of the dominant group's values, attitudes and behavior upon the participation of economically disadvantaged minority in societal institutions.

f. Developing an understanding of rapidly changing environment created by technology.

CREST'S COLLABORATION EFFORTS

Twenty to thirty million adult americans lack basic literacy skills and that makes adult literacy a life-and-death economic and social issue for this county." (1)

Since August of this year, CREST has an used aggressive approach to create partnerships between the project and sensitive employers in the hope to ensure a quality workforce for Essex County.

CREST staff is motivated by the belief that employers will support training programs and on the job training programs if the programs have the added value of quality education. There are a number of factors that make CREST not only a quality instructional program, but a model of educational, community agency/industry collaboration.

The need for a program like CREST is supported by data and is encouraged by the report, "Building a Quality Workforce". Joint report by the US Department of Labor, US Department of Education, and the US Department of Commerce. In this report, we see recommendation for training programs like CREST having as their goals:

1. Strengthening the content of the curriculum and improve its delivery.

2. "Improving educational opportunities and performances of the disadvantaged.

3. Developing community-wide collaborative efforts that increase communication and decrease isolation of the education and business.

4. Working to improve business's labor force planning for the short-and-long term.

A. <u>COMMUNITY</u>

CREST has established linkages with key community based organizations and training service providers through out the community of Essex County.

Organizations, including La Casa de Don Pedro, FOCUS, and El Club del

Barrio are agencies that serve the needs of the Hispanic community in the county. These partnerships are important since Essex County has the second largest population of Hispanics in the state of New Jersey. Essex County also has the second largest population of Hispanic females single head of household. These minority women are disadvantaged twice.
They have been excluded from societal activities that lead to the development of functional problem solving skills.

Hispanic women, like Black women, have received inferior educations in the inner cities due to lack of economic resources for the school districts, teachers low expectations and other social variables that affect students' performances. The Hispanic dropout rate is alarming and, for those that are in school, the success rate is very poor.

A significant factor that impacts on this situation is the lack of cultural sensitivity of the educational systems toward this population.

CREST partnerships with these community based organizations and its culturally sensitive staff combine their efforts to create a program that understands the individual as well as family values of the Hispanic population.

Training service providers including Urban League, Training Incorporated have experienced inability to serve many of their applicants, predominately Black women, because they lack reading and math levels needed for training in the programs.

Both agencies have expressed the need for a center to deal with the lack of basic skills in an innovative approach. This approach they feel must surpass the current focus on remediation. CREST partnership with these providers facilitates the preparation for employment training to include critical thinking skills appropriate to the "service economy" job market. Health care delivery providers, University of Medicine and Dentistry of New Jersey and East Orange Hospital, have made CREST their screening center for on the job training programs in Acute Nursing Assisstance Programs. Students who test below the required tenth grade math and reading levels will enter the CREST program. After they complete CREST, students will start their vocational training at the Health Care Providers facility.

B. GOVERNMENT

Mr. Ulysses M. Jordan of the Bureau of Apprenticeship and Training U.S. Department of Labor, Newark Office identified poor literacy skills as the major deterrent in the entry of urban minorities to apprenticeship positions within Craft Unions.

Craft Unions are mandated by the court order to give entry level tests which effectively have resulted in few minorities being able to serve in union apprenticeship.

In 1988, Women On The Move, a vocational program for minority disadvantaged single parents in Essex County, serviced 180 women in one year. Not one of them was able to pass an apprenticeship exam in carpentry due to inadequate literacy skills.

The national education director for Chrysler has indicated that it is not unusual for Chrysler to interview and test 700 applicants before finding before finding thirty who are reading at the tenth grade level required for admission to the program.
CREST's partnership with Mr. Ulysses Jordan and the U.S. Department of Labor means that CREST students will be participanting in training programs sponsored by Chrysler Training Centers for Automobile Mechanics. Mr. Jordan is presently developing this Chrysler Training Center for Automobile Mechanics to be located in an inner city area-Newark.

CREST will provide the needed prevocational literacy skills instruction to the urban economically desadvantaged minorities.

CREST partnership with Urban League Center includes a partnership with the Newark Mayor's Office of Employment and Training and the Private Industry Council. This partnership facilitates free training at the Urban League in typing and computers.

C. INDUSTRY

Krements Jewelry Incorporated, one of Newark's oldest resident industries has been forming a partnership with CREST. Mayor's Office of Employment and Training, (JTPA) and Pic Council.

This project will provide on the job training for 10-15 CREST students at Krements. These students will work during the day for $6.00 an hour and attend literacy skills training at Rutgers during the evening. The project is a model project.

The model will be duplicated with East Orange General, (Nursing Assistant Program. On The Job Training Program at $6.00 per hour),
and US Post Office (Equipment Repair).

D. UNIONS

Partnership with Sheet Metal Union, Rutgers CREST, and the Small and Associates Incorporated (community service provider for disadvantaged and disabled urban minority.)
Small and Associates will place interested CREST students that have completed the literacy program into the sheet metal union apprenticeship. This apprenticeship will pay students $6.00 an hour while they work three weeks and go to school one week.

CONCLUSION

In terms of Builing a Quality Workforce, the government has emphasized the need for business and education to cooperate in identifying applicant deficiencies in work place skills which educators must address.

Business and education must develop mechanisms to reduce the isolation of their worlds in order to better prepare students for the workforce. CREST is an aggresive and innovative initiative needed in the state by businesses and the disadvantaged Urban Minorities.

Given the crucial need in the Newark area to enable adults entering the labor force to develop adequate literacy skills, given the past record of inadequacies resulting in the failure of programs of remediation, given the desire by business, industry, community and government agencies to work cooperatively with Rutgers Continuing Education to help alleviate the literacy problem, and given the resources and research skills at the university which would facilitate development of innovative approaches to literacy education, the establishment of the Center at Rutgers for Educational Skills Teaching (CREST) is a most worthwhile endeavor.

References

1. Edward B. Fiske, "Impending U.S. Jobs "Disaster":WorkForce Unqualified to Work, "New York Time 25 September 1989, lated ed.

2. Kathleen Teltsch "Help for Workers in a Complex World" New York Times 6 September 1989:

3. US Department of Labor, US Department of Education, US Department of Commerce "Building a Quality WorkForce," 1988. P.5-10

DUAL CAREER COUPLES: IMPLICATIONS FOR THE WORK FORCE, FUTURE TRENDS, AND A FRAMEWORK FOR INCREASED PRODUCTIVITY AND LIFE SATISFACTION

Carlotta M. Horrace, Ph.D.
University of Nebraska-Lincoln

Abstract

This presentation will focus on the increasing prevalence in society of the Dual-career couple. Societal shifts leading to this trend will be highlighted, and the implications for all sectors of society (industry, government, education, the organization) will be discussed. Special attention will be given to maximizing job performance/job satisfaction. A model will be presented with strategies for each sector.

Background and Societal Shifts

Introduction/Definitions. Research on the dual-career couples as an entity has only been undertaken within the past twenty years or so, highly influenced by the work of the Rapoports (themselves a dual-career couple). Dual-career couples are a relatively new phenomenon, increasing from 900,000 in 1960 to 3.3 million in 1983.

Skinner (1986) has classified dual-career families into three specific categories (Figure 1). These include the dual-worker family (two individuals not considered to be on career tracks, such as clerical and factory workers); the "mixed" career/worker couple (when one partner, usually the man, follows a career path, and the other has a more or less "stagnant" job); and the dual-career couple, in which both partners have careers. This latter category has been the focus of most of the related literature, and it is this last category that will be focused upon here.

Figure 1

A TYPOLOGY OF DUAL EARNER COUPLES

INVOLVED IN

LABOR-MARKET WORK

From: Personal Conversation with D. Skinner, 1988.

Current State of the Literature. Current research on dual-career couples can be categorized into four primary areas. Ranking these areas from most prevalent to least prevalent, they are: (a) Marriage and the Family/Human Development, (b) stress and coping, (c) job performance, and (d) other areas. The first two are by far the most prevalent; the last one, in areas such as dual-career dynamics, or dual-career counseling, is almost non-existent. Prominently absent from the literature in many cases also, are practical solutions and any discussion of preventive tactics or education before problems develop (Horrace, 1988).

BEST COPY AVAILABLE

Societal Trends. The increasingly prevalent phenomenon of the dual-career couple in society has already been discussed. In this section, other trends contributing to this phenomenon will be analyzed (from Catron, S. ACME, cited in the INAR Newsletter, 1988).

Sixty-two percent of American families have two incomes; the fastest rising group is women with pre-school children. By 1990, the estimates rise to 67%.

The age at first marriage is increasing for both sexes; the average ages are show here:

	1966	1986
Men	22	25
Women	20	23

Also, more men and women are staying single until their thirties.

Women in the vanguard of the transition generation (those currently between the ages of 35-39) who were raised in more traditional households, and who are now undergoing the most rapid, disruptive social change, are expected to have the highest divorce rates ever, with rates up to 60%.

More than 90% of women work at sometime in their lives; two-thirds of them work out of economic necessity. By the year 2000, the woman's stay in the work force is expected to be over 40 years, compared to 34 years in 1980 (men are estimated to spend 38.4 years in the work force).

Currently, only 7% of American families have a working father, a dependent mother, and two children.

Fifty-one percent of all working women are married. Eighty-four percent of their children are not in government licensed or government regulated day care. These statistics range from 1980-1986. (After the completion of the 1990 census next year, newer data should be available).

Implications for the Work Force

One of the major reasons that dual-career couples receive such attention in the increased stress and conflict that the dual-career lifestyle carries with it. This has implications for such diverse areas ranging from productivity to child care arrangements.

This areas is seen as the most difficult one to manage and resolve for the dual-career couple.

Time Management. With the tremendous premium placed upon "time" as an entity in the dual-career lifestyle, time management becomes a values confrontation (Seiden, 1980). There are always more things to be done than there is time to do them, and how the time is allocated can become a power distribution issue in the household. Different tasks may be ranked differently by each partner, causing conflict in such areas as: (a) spending time alone versus spending time with family, (b) spending time with relatives versus spending time with spouse and (c) spending money on services to save time, versus spending the time to do the actual tasks; such as cooking, ironing, etc.

Time management issues become more pronounced when work is a "fixed" time period (i.e., little flexibility or autonomy in the choice of work hours;) when the wife is considered to have more of a "job" than a "career," so that the husband's needs are given priority; and when one (or both) careers require extensive on-call and/or after hours work (such as the military).

Questions for time management dilemmas include:

1. Who should do it?
2. How important (relatively speaking) is it?
3. If important but difficult, how to overcome the barriers?
4. If too large to do routinely, how to divide it?
5. If trivial, but taking up too much time, how to resolve it?

Time for children and family relaxation is a major factor to be reconciled through time management; ideally so that each child has time to spend with each parent, and so that the family has time to spend as a unit.

Competition. In previous years when roles were more clearly defined, and the wife was either in a non-career or subordinate career status, interspouse competition was non-existent. It is the most recent of the three conflict areas. In the hypotheses proposed by Hall and Hall, the author would like to go so far as to qualify number four, and stipulate that although two careers may be more compatible when in similar fields, they become less compatible when in the same field. This would be even more pronounced if both partners are in the same career development stage, and/or in the same organization.

Competitive feelings are a natural and inevitable part of human nature (Rice, 1979), especially when one considers that two high-achievers (such as career professionals usually are) are expected to hone their competitive skills in college, graduate school, and in the organization. However, this emotion does bring added guilt to the relationship, causing even more conflict and dissonance.

Stress and Conflict in the Dual-career Couple. Stress and conflict can be attributed mainly to three major areas in the work and family arena: role overload/role cycling, time management, and interspousal competition.

Multiple-role cycling. Whereas family roles were once separate and distinct, they become blurred in the dual-career family. The new roles demanded of both women utilized an extraordinary amount of time, energy, and versatility. Dissonant cultural mandates still exist that make change difficult, bringing pressure both on women who want to achieve in the work force and on men who want to play a larger role in raising their families. There is still, in many cases, a high normative expectation for women to continue to perform most or all of the household duties as well as her career-related duties, making role strain even greater on these women. In any case, dual-career parents experience a "proliferation" of roles (Johnson & Johnson, 1980) rather than a

compartmentalization of them. The implications of this, are that it is often difficult, if not impossible, to cut-off the family responsibilities and worries at the time that the couple departs for work in the morning; and it is equally as difficult to shed the work persona (which may include after-hours socializing, night classes, or reports to finish at home) at the close of the business day. Research has shown that women seem to be less able to compartmentalize and delegate than men; perhaps because men are often trained from childhood for leadership roles in such activities as team sports, Eagle Scouts and the military, while those women who were raised in the more traditional manner are socialized to be followers rather than leaders.

Hall and Hall (1980) have developed a set of hypotheses for coping with multiple role cycling. In summary, these include:

1. Couples will be more likely to make family sacrifices in early career than in later stages. Family factors may take priority in midcareer.
2. Conflict between career and family will be: (a) moderate (or latent) in early career, (b) highest in midcareer, (c) lowest in late career.
3. Two careers are more likely to be compatible if one ranks career number one and the other ranks family number one (accomodators), or if both rank family number one (allies), than if both partners give career top priority.
4. Two careers are more likely to be compatible if both partners are in similar fields. (*see Competition section).
5. Two careers are more likely to be compatible if there are no children.
6. Two careers are more likely to be compatible if they are in different stages than if they are in the same stage.
7. Two careers are more likely to be compatible when the two jobs are protean and allow autonomy and flexibility.
8. Two careers are more likely to be compatible if the partners are mutually supportive, skilled at problem solving, and committed to each other's careers.

Sekaran (1986a) has developed four categories of couples; conflict and competition would be lowest in the top-ranked category, and most pronounced in the last.

1) SUPERORDINATE: Androgynous spouses with equity-based values that help each other achieve joint goals.

2) SYNCHRONIZED: One parter in accommodating (either by choice or by nature) or they match each other. They help each other achieve individual goals.

3) SYNTHETIC: One partner or the other feels that their aspirations are being compromised.

4) SEVERED: Total incompatibility (Usually leads to rupture of the marriage.)

(The Majority of today's couples are said to be at 2 & 3)

Job Performance and Job Satisfaction. Etzion (1988), one of the few researchers to explore the job performance aspect of the dual-career couple, conducted a matched pairs study of male and female engineers. He found that men have a positive correlation between work and non-work success; but that women have a negative correlation in these areas, experience more conflict, and find it harder to integrate success in both areas of their lives. This seems to indicate that the more time that women spend on their careers, thereby achieving success in the work arena but possibly neglecting (by sheer amount of time, if nothing else) the family arena, the more conflict they experience.

Burnout is negatively correlated with work success for women, but not for men (i.e., men may achieve work success and then burn out from overwork; women do not burn out from work success, but from the conflicts arising from role-cycling). For women's experience of burnout, a lack of enjoyment is often related to perfectionistic attitudes and aspirations more than actual accomplishments. This may result from the vanguard effect that we have already mentioned; women in the forefront of the "change generation," who are the first in their field, feel a need not just to succeed, but to "be the best," (especially since they come under constant and often hostile scrutiny). This burnout is most pronounced in traditionally male dominated occupations (such as engineering and the military). Research also suggests that burnout is not a simple outcome of work-related stress or home and family issues; but a phenomenon related to the fit between personal characteristics and the total work/non-work environment in which the individual exists. Men and women, even when engaged in similar activities, possessing the same capabilities, viewpoints and preferences, still exist in different social contexts and face different social, personal, and family dynamics. Further, even when women have better credentials, they tend to assess themselves as having lower overall self-confidence and less ability to make decisions.

For women, more burnout is associated with their attaching high importance to success in either work or family life; less burnout is associated with a balanced, moderate outlook toward both (i.e., the Superwoman complex). The definition for career success for women therefore, seems to be balance, not achievement. Age seems to increase perceived success for females; but to decrease perceived success for men. This seems to imply that women perceive success more as merely surviving and attaining any status position in the organization; while men who maintain their status, rather then increasing it, see themselves as stagnating.

Finally, Klein (1988) suggests that tenure is important in job performance and job satisfaction; home and career conflicts differ with each career stage. Sekaran (1986b) has found that a sense of competence and self-esteem are useful both for assessing work-related outcomes for professional married couples' experience of satisfaction in the work place, and for further organizational research.

At this point, then, will begin a discussion of the implications for the organization.

The Dual-career Couple in the Organization. As detailed earlier, there has been a radical change in the composition of the work force; today, over two-thirds of American families have both spouses in the work force. This has many implications for the organization.

Benefits to the organization exist within the framework of "unpaid" brainstorming sessions. Coordinating couples who specialize in the same or similar fields can develop innovative ways of solving managerial and technical problems, due to their common knowledge of work and organizational issues. Even those not in similar fields can discuss challenging issues and gain new insights. This enhances productivity in the organization.

Hidden costs to the organization do exist, however, in the persona of (a) lost time at work due to family concerns; (b) more rapid turnover, due to (1) refusal to relocate and/or (2) the inability to handle extreme high pressure jobs; and (c) increased psychological alienation at work, due to more pressing personal needs, than someone who has a spouse at home or does not have any family ties, might experience. However, the dual-career couple is a phenomenon that is estimated to increase, not decrease in the 21st century; so creative problem-solving now by organizations can reduce or eliminate these types of problems before they cost the organization far more than it is able to cope with.

Costs from the organization that the dual-career couple faces can cause additional conflict to add to the role-cycling, time management, and competition issues discussed in the last session. These include negative attitudes from colleagues and superiors, non-acceptance of career paths other than traditional, and non-acceptance of alternative work patterns.

The first, negative attitudes, includes non-acceptance of the fact that family responsibilities do exist for both partners, and therefore must be dealt with and cannot be ignored. This includes such matters as needing time off to care for sick children, inability to work consistently "on-call" during off-duty hours, inability to consistently work past regular work hours, and the need for more "personal business time" during the work day (there are some activities and services that are just not available on evenings and weekends, such as school programs and doctor's appointments.) For women, time out for child-bearing (always a uniquely feminine issue) is still met with hostility, skepticism, and doubt regarding her degree of professionalism and commitment, no matter how short the amount of maternity leave may be. Just the fact of a professional woman having a child may be seen as a step (however small) backwards or sideways away from the "fast-track."

Non-acceptance of a career path other than traditional and rigid is a second negative factor, that is both an organization and a societal problem. Failure to recognize as legitimate, such patterns as slower than usual, intermittent (with short stop-outs for family) interval (with several longer periods of stop out time), and part-time interspersed with full-time, puts increased pressure on dual-career couples who hope to achieve any kind of status quo in their careers. An editorial in the May, 1989 Working Woman magazine specifically mentions such careers as those in high powered law firms, in which some women attorneys with children accept permanent positions in the firm that include "reduced" hours, (down to 35 or 40 per week); which relegates them to a secondary level but does not force them to leave the firm as others, who do not make "partner" at the end of seven to nine years, must. This practice is given the credit for originating the term "mommy track," now generalized to include other career fields. In fact, Felice Schwartz, President of Catalyst (see Section III, Future Trends) has proposed that women be considered in two categories; "career primary" women and "career and family" women (1989). She recommends that these women be identified early and tracked differently, thereby giving the work and family woman less pressure to work long hours and a strict schedule, but also, in the bargain, meager chances for advancement. Although this is an improvement from the old ideas that marriage, family, and work don't mix, it is still grossly discriminating to women who have families, basing achievement opportunities on family status rather than merit. Ehrenreich and English (1989) call this "mommy track" concept a backlash against professional, higher status, higher paid women; and potentially against all women. The feel that the "fast track," complete with it's toxic levels and work and macho ideals, is still the only true track to career success. Further, they hold that work loads incompatible with family life are a toxin to men and women, and ultimately to the organizations also.

Finally, failure by organizations to recognize alternative work patterns goes hand-in-hand with their failure to recognize alternative career patterns. These may include real flex time (not merely allowing workers to come in a few minutes earlier or leave a few minutes later, but also the four day work week, weekend work, etc.); contract work (giving an assignment and a deadline, without putting constraints on its completion, thus allowing it to be done anywhere or anytime, as long as it is accomplished); and permanent, part-time work (with benefits). Too many organizations are still believers in the old "at your desk" mentality, believing that a person is only productive when they can be seen, all day every day at their desk. In reality the person sitting at a desk for long, unrelieved periods, may be much less productive than a person who is able to take care of pressing personal matters when they occur so that he or she can then complete assignments (on their own time) without worry.

Organizations that are in the lead of establishing rewards more upon merit, decreasing sex discrimination in the workplace, and as creating more opportunities for employees to be creative and innovative, have been identified to include Hewlett-Packard and IBM (Scholl, 1983). Hewlett-Packard includes absence for sick child care by combining sick leave and vacation time into a single "personal leave" category (Nollen, 1989). IBM is also listed as one of the best places for women to work; and Leo Burnett (an ad agency in Chicago) will pay up to $3,000 to help an employee adopt a child therefore making the list of "most unusual benefits" (Levering, et al.,

1984). One of the most innovative corporations to implement "true" flex time has been North Carolina based NCNB Corporation, headed by Hugh McCall, Jr. Mr. McCall (although recently named by Fortune magazine as one of "America's toughest bosses") wholeheartedly supports the program. He remembers a day long ago when he attended a banking meeting instead of coaching his son's championship basketball game; and the team lost by 1 point. While the program has not been without problems (the participants have had to redefine "accessibility" and at first, lost some benefits and privileges,) the bank believes that they have received increased productivity for the money that they have invested. (Trost, 1989).

All in all, family and marital problems, including those associated with work and family conflict, are said to range from 30-35% (over one-third) of the case load of employee assistance programs (Phillips, 1986). More creative problem-solving strategies from organizations, especially formal recognition by industry of the undeniably interrelated roles of work and family, will be a key to maximum productivity in the 21st century.

Future Trends

To reinterate, dual-career couples, as an entity, have undergone a phenomenal increase in the past two decades; from 900,000 in 1960 to 3.3 million in 1983 and still climbing. As more career women postpone marriage until they establish a career; therefore marrying later, they are more likely to marry other professional men, and less likely to give their careers up. Therefore, it is obvious that the dual-career phenomenon is here to stay. This has tremendous implications for the economy, the government, the educational system, and for cultural trends in American society.

Implications for Industry. Trends here mirror the predicted huge growth of the service sector. Busy career people need more services, and will have more income to pay for such services. Another need will be a requirement for more referral agencies to connect them with these services.

Implications for Government. The United States is currently the only advanced, industrialized nation without a national, uniform, parental leave policy. We also lag behind in subsidized child care, medical care, and other social legislation. The government still possesses a wide range of views on these subjects, ranging from Representative Pat Schroeder, who postulates that quality day care is expensive, and it is therefore the government's responsibility to help care for its young citizens; to the National Chamber of Commerce, who states that parenting concerns are not government concerns. However, if due to parenting concerns, parents are not productive at work, the Gross National Product (GNP) will begin to decline; and this will force the government to take action. Further, the government stipulates that young citizens, ages 6-16, have the right to a quality, safe, regulated public education; the author believes that future legal implications may include questions as to the legal and constitutional rights of even younger citizens, aged 0-5, to have quality, safe, regulated public day care. Dare we imply that any one group of citizens is entitled to more rights than another, due only to age differential? These issues raise serious questions as to the basic human rights of children in this country.

Implications for Education. The next decade and next century will bring a demand for less sex-biased curriculum, so that co-parenting will be an accepted and considered aspect of family life from a very young age. Many of the conflict areas now inherent in the dual-career lifestyle stem from children being raised according to one set of values, and later finding that those values have been superseded by the economic and social demands of adulthood. Early training in such areas as infant care, domestic tasks, and child-rearing will be desirable and necessary, perhaps resulting in an increased and resurgent respectability of the public school home economics curricula. At the level of higher education, Harvard University and other institutions are introducing topics concerning dual-career family life into such courses as organizational behavior, management, finance, and marketing.

Implications for Society. The media has given the dual-career lifestyle and the child care crisis increasing attention over the past ten years, with special programs, news coverage on such series as 20/20, and movie themes that focus on related topics, such as Baby Boom and Mr. Mom. However, the trend is again seen here of tending to be focused more upon difficulties than of solutions and of being unrealistic; in Baby Boom the career professional, after adopting an orphaned young relative, opts to leave the fast track and start her own business; and in Mr. Mom, the male spouse (an engineer) regains his job in a matter of a few weeks or months, and the wife decides to return to homemaking and give up her high-powered advertising job. Both movies trivialize the issues; and both offer unrealistic solutions that are not economically-feasible options for the average American family.

New organizations to deal with these emerging lifestyles are developing; one example is Catalyst, a non-profit organization that works with organizations and individuals, and which has begun a project sensitizing young students to the integration of career and family values. These projects are currently in progress at such institutions as California State University at Chico, Drake University, and Florida State University. Others include the formulation of a Commission on Work and Family, under the auspices of the National Vocational Guidance Association; and the National Organization for Changing Men.

Society is also becoming slowly more supportive, due to the following factors (author's analysis):

1. The number of dual-career couples is steadily increasing, leading to a larger economic and lobbying base.
2. More dual-career couple individuals are becoming part of the "ruling structure," as older, more traditional (mostly male) policy-makers retire.
3. The children born to the first dual-career couples are starting to grow up and take their place in society.

BEST COPY AVAILABLE

Again, the current group of adults aged 30-45 are the "transition generation"; the group in which many as children, were raised with traditional (one-career per family) values and circumstances, and then forced to cope with enormous change and dissonance in their social structure. There are two current schools of thought on the resulting children from the new group:

1. that they will be more able to cope with a fast-paced dual-career lifestyle, since they were raised in one, or

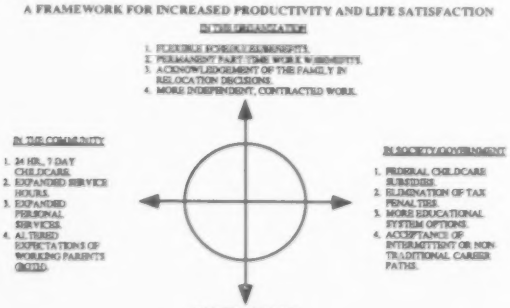
2. that the tremendous difficulties that today's dual-career parents are experiencing will influence the next generation to return to a simpler, less achievement-oriented lifestyle, such as the one career structure.

However theoretically possible the second alternative sounds, however, we have shown in previous discussion that economic necessity and the changing role of women are unlikely to allow this circumstance to occur.

Finally, a last problem area that will add even more weight to the already over-burdened roles of the dual-career couple is the increasing problem of elder care. With family size smaller in the current adult generation (being from families with only one or two children, as opposed to six or seven in earlier times) there are less resources between siblings to care for elderly parents, and a dual-career couple who are both only-offspring, may end up having to take on the additional responsibilities of both sets of parents. Further, since they have delayed child-bearing, they may be caring for their parents at the same time as their own children. This is a potential crisis situation that must be addressed in the coming years.

A Framework for Increased Productivity and Life Satisfaction. This model presents practical solutions and creative ideas for solving many of the dilemmas facing the dual-career couple today, in every segment of the dual-career couple's existence. Acknowledgement is given to D. Skinner (1986b) for the incorporation of some of her ideas into this original model.

Figure 2


A FRAMEWORK FOR INCREASED PRODUCTIVITY AND LIFE SATISFACTION
IN THE ORGANIZATION
1. FLEXIBLE WORKING ARRANGEMENTS.
2. PERMANENT PART TIME WORK W BENEFITS.
3. ACKNOWLEDGEMENT OF THE FAMILY IN RELOCATION DECISIONS.
4. MORE INDEPENDENT, CONTRACTED WORK.
IN THE COMMUNITY
1. 24 HR., 7 DAY CHILDCARE.
2. EXPANDED SERVICE HOURS.
3. EXPANDED PERSONAL SERVICES.
4. ALTERED EXPECTATIONS OF WORKING PARENTS (WITH).
IN SOCIETY/GOVERNMENT
1. FEDERAL CHILDCARE SUBSIDIES.
2. ELIMINATION OF TAX PENALTIES.
3. MORE EDUCATIONAL SYSTEM OPTIONS.
4. ACCEPTANCE OF INTERMITTENT OR NON-TRADITIONAL CAREER PATHS.
ON A PERSONAL LEVEL
1. CLARIFICATION OF PERSONAL GOALS.
2. CLARIFICATION OF FAMILY GOALS.
3. WELLNESS (PHYSICAL & MENTAL) AS A PRIORITY, NOT AN OPTION.
4. STRENGTH OF SELF-IMAGE.
5. RESPECT FOR SIGNIFICANT OTHERS.

Concluding Statement

Dual-career couples are an entity in society to be acknowledged, accepted, and reckoned with. They are not a passing phase, but an increasingly prevalent trend.

References

Ehrenreich, B., & English, D. (1989, Jul/Aug). Blowing the whistle on the mommy track. MS., 56-57.

Etzion, D. (1988). The experience of burnout and work/non-work success in male and female engineers: A matched pairs comparison. Human Resource Management, 27(2), 163-179.

Hall, F., & Hall, D. (1979). The two-career couple. Reading, MA: Addison-Wesley.

Horrace, C. (in review). Towards establishing a framework for dual-career counseling and development. Manuscript submitted for publication.

Institute of Agriculture and Natural Resources. (1988, February). Women, marriage, family, and work. Institute Newsletter on Work, Family and Personal Growth. Lincoln, NE University of Nebraska-Lincoln, 1.

Johnson, C., & Johnson, F. (1980). Parenthood, marriage, and careers: Situational constraints and role strain. In F. Pepitone-Rockwell (Ed.) Dual-career couples. Newbury Park, CA: Sage Publications.

Klein H. (1988). Job satisfaction in professional dual-career couples: Psychological and socioeconomic variables. Journal of Vocational Behavior, 32, 255-268.

Levering, R., Maskowitz, M., & Katz, M. (1984). The 100 best companies to work for in America. Reading, MA: Addison-Wesley.

Nollen, S. (1989, May). The work-family dilemma: How HR managers can help. Personnel, 25-30.

Phillips, D. (1986). From work and family: A changing dynamic. Washington, DC: Bureau of National Affairs.

Rice, D. (1979). Dual-career marriage. New York: MacMillan Publishing Co.

Scholl, T. (1983). Corporations of the year. Savvy, 30-37.

Schwartz, F. (1989, Jan/Feb). Management women and the new facts of life. Harvard Business Review.

Seiden, A. (1980). Time management and the dual-career couple. In F. Pepitone-Rockwell (Ed.), Dual-career couples. Newbury Park, CA: Sage Publications.

Sekaran, U. (1986a). Dual-career families. San Francisco, CA: Jossey-Bass.

Sekaran, U. (1986b). Self-esteem and sense of competence as moderators of the job satisfaction of professionals in dual-career families. Journal of Occupational Behavior, 7, 341-344.

Skinner, D. (1986a). A typology of dual-employed families. Personal conversation.

Skinner, D. (1986b). Managing in dual-employed families: Policies and perspectives that would help. Personal conversation.

Smith, A. (1989, May). What makes a good leader? Working Woman, 2.

Trost, C. (1989, Apr). Companies move toward flexible work schedules. National Business Employment Weekly, 31-32.

Voydanoff, P. (1987). Work and family life. Newbury Park, CA: Sage Publications.

ED-Net: California's Unique Approach To Networking Community College Economic Development Programs

A. Brian Calhoun Ph.D.
Executive Director of Economic Development
Fresno City College

Abstract

ED-Net, the Economic Development Network, is a training consortium created by the Chancellor's office of the 107 California Community Colleges to encourage and implement training programs and services for business and industry. Representing a statewide network of expertise and resources, ED-Net is the focal point of a $2 billion training institute that is able to cater to the growing needs of California's work force. By serving as a collective voice for all the state's community colleges, ED-Net facilitates the role of community colleges as full partners in the drive for economic growth in the state. ED-Net also reinforces the growing importance that California community colleges play in the interaction between education and private industry in the development of our society and our economy.

"California--the world's sixth largest economy--must take an even more active role in all aspects of economic development in order to keep pace with the increasingly competitive global marketplace.

Through the ED-Net economic development program, our community colleges, the largest college system in the United States, will help facilitate the complex mission of unifying people developing improved economic programs and providing a resource of serves to boost the state's economy and propel California into the 21st Century."

The Honorable George Deukmejian
Governor, State of California

Introduction

Early in the process of evaluating the role of the California Community colleges in economic development, it became apparent that while a large number of innovative and successful economic development programs were in place, a coordinated effort was lacking. It was determined that by joining together and sharing information and resources, California's community colleges would become more effective partners in the economic development efforts of their communities. As a result, the following needs were identified:

- A database containing information on current levels of community college economic development activities and exemplary programs;
- A Network of community colleges;
- An executive committee comprised of those actively involved in efforts that foster the community colleges' role in economic development; and
- An economic development marketing package for use by all California community colleges.

Fresno City College received a grant from the Chancellor's Office in 1988 to implement an economic development network for California Community Colleges (ED-Net). Although the ED-Net Project has been in existence a relatively brief time, early indicators suggest that this effort may have a significant impact on fostering community college/business relationships throughout California.

Achievements to date include the following:

Executive Committee

A statewide ED-Net Executive Committee, representing field expertise in contract training, applied competive technologies, international trade and small business assistance programs, has been established to coordinate and guide the activities of the project.

Committee Network

Committees have been established to focus on individual economic development projects such as contract training, small business assistance centers, applied competitive technologies and international trade. Each of these committees serves as a resource for all other community colleges, as well as develops and produces curricula, packages of information and models of economic development related programs.

Contact Persons

An ED-Net economic development contact person has been established at each of the 107 community colleges. The ED-Net contact person receives information and training on how his/her college can become a more viable partner with the local business community.

Regional Economic Development Network

The California community colleges have been divided into five geographic regions. This arrangement has facilitated economic development activities among the community colleges, has allowed for more efficient training of economic development contact persons, faculty and staff and has reduced the costs associated with statewide training, technical assistance and meetings.

In addition, regional host institutions have been selected (one for each of the five geographical regions) to coordinate and deliver the ED-Net training and technical assistance around economic development issues. The president of the host ED-Net Institution serves on the ED-Net Advisory Council and an economic development faculty or staff person at the host instituion serves as the Regional Committee Chair and as such serves on the ED-Net Executive Committee.

ED-Net Database

One of the goals of the ED-Net Project was creation of a database and electronic bulletin board/retrieval system that would serve the entire ED-Net membership. Initially, the database held the results of a statewide survey of current economic development activities in the 107 California community colleges and published in September of 1988.

Currently, the ED-Net database is being expanded to include more specific information about types of community college exemplary programs, contract training information including amount of contracts, employers contracting with community colleges, sample contracts and descriptions of courses. It also has an electronic bulletin board and mail system to facilitate the ED-Net committee efforts to collaborate statewide on various projects and model programs.

Finally, ED-Net's database assists ED-Net staff with marketing referrals for businesses and organizations who are seeking training programs and services at community colleges. The database houses profiles of individual colleges which identifies the kinds of equipment, programs, training and technical assistance resources available at each campus.

Regional and Statewide Conferences

ED-Net sponsored three regional economic development conferences in the Spring of 1988. Individuals representing colleges, state and local economic development agencies, and businesses attended. These conferences were designed to heighten the awareness of the role of the community colleges in economic development and to develop relationships between the colleges and representatives of the business community.

ED-Net sponsored a statewide conference in the Spring of 1989 showcasing ED-Net economic development initiatives.

Each Regional Host Institution will host five economic development related workshops to the community colleges in its region during the 1989-90 program year. Workshops and in-services will include such topics as how to access ED-Net's database and electronic bulletin board, how to implement and/or expand contract education programs, and other customized topics around international trade, small business assistance programs and the applied competitive technologies.

Marketing Materials

Marketing materials, brochures, and a thrice annual newsletter are being developed to assist colleges in telling the "community college story" to business and industry in their local communities. In addition, the ED-Net office in Fresno acts as a clearing-house for requests from business and industry around the state.

Liaison With Others

ED-Net has provided a vehicle for developing liaisons with other economic

development agencies at both the local community and statewide levels. Most significant is the emerging relationship of California community colleges with the State Department of Commerce as a full partner in the statewide economic development plan.

Leveraged Resources

ED-Net provides an innovative approach to leveraging dollars from other agencies to support economic development activities. A recent example is the interest of the U.S. Department of Commerce in augmenting ED-Net activities with funds from the Federal Economic Development Administration.

Summary

ED-Net is facilitating the role of the community colleges as full partners in a plan to foster economic growth in California. As a statewide network for expertise, resources, and facilities, ED-Net reinforces the expanding mission of the community colleges as a vital training resource for business, industry and government.

ELDERCARE: A GROWING DILEMMA FOR EMPLOYEES AND EMPLOYERS

Vicki L. Schmall, Ph.D. and Ruth Stiehl, Ed.D.

Abstract

Due to longer life expectancy, the rising median age of the labor force, and the increase of women in the labor force, corporations, in the 21st century will find it in their own best interest to provide employee assistance programs that focus on eldercare. Education and training is the best way companies can get ready for aging concerns in the 21st century. This presentation describes seven multi-media training packages that companies are presenting through employee assistance programs. The highly creative materials are available to any company at the cost of duplication.

In addition to raising her two children and working full time Mary, 48, spends 20 hours a week providing care and support to her mother who had a stroke a year ago.

Bill, 56, receives several calls daily at work from his wife, who has Alzheimer's disease. Because her memory is failing, she calls Bill for reassurance.

Jane, 52, receives an emergency call that her father has just been taken to the hospital. This is the third time in less than two months she has had to take time off from work to assist older family members in crisis.

The experiences of Bill, Mary, and Jane are increasingly common among employees. For many employees, the issue is no longer how to provide child care, but rather how to provide care to aging relatives in need of assistance.

The American workplace will be increasingly affected by eldercare as we move into the 21st century because of longer life expectancy, the rising median age of the labor force, and the increase of women in the labor force (Scharlach and Boyd, 1989). Most workers are likely to find themselves in a support role or providing caregiving to an elderly relative at some time during their work history.

Caregiving responsibilities frequently conflict significantly with an employee's work. As one female employee stated, "I'm in constant conflict about shortchanging my mother on the one hand and my job on the other." Sometimes caregivers are forced to reduce work hours or quit jobs because they cannot manage both work and eldercare responsibilities (Enright and Friss, 1987).

Studies of major corporations show that one of every four employees already provides care to an elderly spouse or parent (Fernandez and Pinnisi, 1989).

BEST COPY AVAILABLE

Corporations with a high proportion of female employees and a higher average age among their workforce are more likely to have a higher percentage of their workforce faced with eldercare (Creedon, 1988).

Not only are employees affected by eldercare, but so are the businesses and corporation where they work. Eldercare frequently interferes with employee work performance and productivity. Employees who are caregivers generally miss more days of work, are interrupted more often at work to deal with caregiving issues, require more time off during the work day, and take more unscheduled time off (Enright and Friss, 1977; Wagner and Creedon, 1988; Scharlach and Boyd, 1989). Estimates are that about 12 percent of employees ultimately leave their jobs to become full-time caregivers (Employers, 1989). Co-workers sometimes are stressed by the responsibility of assisting or covering up for the employed caregiver (Warshaw, 1988).

ADDRESSING THE PROBLEM

How can an employee assistance program in a corporation address eldercare needs and concerns? One method is through education. All employees, not only current caregivers, can benefit from information and training concerning the issues they are likely to face in the future with an older relative. The information and training might focus on living arrangements, financial problems, caregiving, or how to deal with a parent who has experienced a significant loss or is depressed.

Educational programs of this nature will also assist employees by providing an opportunity for them to talk with others experiencing similar situations. Learning "I am not alone" can help normalize a person's experience, and reduce personal stress that contributes to low productivity (Rzetolny and Mellor, 1981).

One educational series designed to help employees understand and better deal with concerns about aging relatives is **When Dependency Increases**. Developed by gerontology and instructional design specialists at Oregon State University, it is a comprehensive, multi-media training series that is being used by many companies, and can be purchased at minimal cost through Oregon State University.

THE OREGON EDUCATIONAL SERIES

When Dependency Increases consists of seven comprehensive multi-media workshops that can be presented to small groups of employees or viewed by individuals. Handout materials can be copied and taken home for discussion with other family members. A video tape is also appropriate for home viewing. By following the workshop guide, a company trainer can conduct a 1 to 2 1/2 hour workshop with minimal preparation. Each of the seven different programs can be used independently or together as a training series.

Each training package includes the following material:

Visual media
- * 15-18 minute slide sound program
- * Videocassette
- * Overhead transparency masters

Comprehensive presenter's guide
- * Program objectives
- * Instructions for organizing a workshop
- * Workshop activity guide
- * Instructions for localizing resources
- * Slide tape script
- * Participant worksheets
- * Participant handouts
- * Program announcement copy.

Why the Programs are Effective. At the core of each training package is a dramatic production, presenting the story of at least one older person and the problems the family faced. This "story" provides a common frame of reference for the audience and

encourages discussion and problem solving. It's also less threatening for employees to initially discuss someone else's situation than their own. In addition, people remember concepts much longer through the personalities they meet on the screen and discuss in workshop activities than they remember through lecture. High audience interest is generated because the media provides real people stories, visual drama, audience participation, and guidelines for action.

Each of the programs in the series is described below.

Best Wishes Edith and Henry. (Family Relationships) Edith and Henry have been married 53 years. Through their family, viewers learn about the social and demographic changes impacting families in later life. Decisions are faced when Edith should no longer drive and Henry experiences a health crisis. Viewers look at the impact of decisions on all family members and explore approaches for resolving concerns.

260 Primrose Lane. (Housing Decisions) Through the lives of Claire, Ethyl, Sara, and Norman, viewers learn about the impact a change in living arrangements can have on an older person, factors to consider is selecting housing in later life, and living arrangement options available to older people with different needs for support.

The Dollmaker. (Stress from Caregiving) The caregiver's health is at stake when Alyce provides care for Ernie and refuses help and respite. Alyce becomes isolated and loses her health. Her business suffers. Guidelines are suggested for making caregiving decisions and reducing stress for the caregiver.

Due Upon Receipt. (Finances) Isabelle, Carlos, Maggie, and their families face financial concerns. Through Isabelle, viewers learn about the problems low-income elderly face and available resources. Carlos has multiple health insurance with duplicate coverage and is a prime target for sales agents. Eventually, Carlos' children get a conservatorship and face nursing home costs. Fred and Maggie have a sizable estate. When Fred dies, Maggie knows nothing about their finances and faces major financial decisions. Guidelines are presented for making financial decisions.

The Second Story. (Loss & Grief) Following the death of his wife, William Sanders, 70, tried to "be strong" and didn't talk about his wife's death. Six months later he experiences additional losses. Through Bill's story, viewers lean about the grief process, how multiple losses in short succession can overwhelm a person, and ways to support the bereaved.

The Final Course. (Depression) Mrs. Murphy, 72, took great pride in her roles as wife and mother and her ability to make the finest desserts. Following a mild stroke, which limits the use of her left arm, she is devastated and becomes depressed. Viewers learn about the signs of depression, how to recognize a potential suicide, and ways to help the depressed person.

Winter Comforts. (Alcohol Problems) Following her retirement, Phyllis' one class of wine extends to several glasses to "drive away the loneliness." Phyllis becomes forgetful, develops unexplained bruises, calls at odd hours, and exhibits other behavior changes. Eventually the family recognizes Phyllis has an alcohol problem and an intervention follows. Through Phyllis' story, viewers examine the

BEST COPY AVAILABLE

development of alcohol problems in later life and learn about available resources and how to intervene.

CONCLUSION

Due to longer life expectancy, the rising median age of the labor force, and the increase of women in the labor force in the 21st century, corporations will find it in their own best interest to provide significant eldercare support services. In time, caregiving benefits for employees could include options such as adult day care, time off to care for older relatives, or expanded counseling and referral services.

The best thing corporations can do now in preparation for the next century is to educate both workers and management in the issues of an aging population. Use of the When Dependency Increases training series is an easy and effective way to do it.

AVAILABILITY

The development of these program has been subsidized through financial grants. Therefore, each program is available for purchase at cost of duplication. The cost of each slide-sound program with the comprehensive presenter's guide is $67.50. The videotape sells for an additional $17.00. For more information, or to order, contact:

When Dependency Increases
c/o Vicki L. Schmall,
Gerontology Specialist
Milam Hall 161
Oregon State University
Corvallis, OR 97331-5106
(503) 737-3211

REFERENCES

Creedon, M.A. 1988. The corporate response to the working caregiver. Aging No. 358, pp. 16-19.

Employees and Eldercare. 1989. Working Age 4(6):1 May/June 1989.

Enright, R.B. and Friss, L. 1987. Employed caregivers of brain-damaged adults. San Francisco, Family Survival Project.

Fernandez, J.P. and Pinnisi, A.L. 1989. Eldercare vs. childcare: defining the difference. Aging Network News. August 1989, pp. 9, 17-18.

Rzetelny, H. and Keller, J. 1981. Support groups for caregivers of the aged. New York, N.Y., The Natural Supports Program, Community Service Agency.

Scharlach, A.E. and Boyd, S.L. 1989. Cargiving and employment: results of an employee survey. The Gerontologist 29(3):382-387.

Wagner, D. and Creedon, M. 1988. Employed caregivers. Bridgeport, CT.

Warshaw, L. 1988. The Aging Workforce 2(2):3.

ENTRY-LEVEL WORKER STUDY

THOMAS OWENS, FRANCIE LINDNER, CAROLYN COHEN

Abstract

As the available pool of entry-level workers decreases, businesses are beginning to hire employees who, less than five years ago, may not have even been considered for a job interview. Employers and educators are expressing a need to learn about exemplary practices of companies in working effectively with what might be considered "at-risk" employees. A study of entry-level workers, conducted jointly by the Northwest Regional Educational Laboratory (NWREL) and the Northwest Policy Center (NPC), was conducted based on a review of the literature and on personal interviews and observations at 58 companies, representing small, medium and large firms or organizations. These companies include construction, manufacturing, retail trade, health, public utilities, child care, financial and insurance industries, local, state, and federal government, food and hospitality industries, other service industries, and higher education. Employers reported experiencing shortages in number of qualified applicants for entry-level positions. The growing gap in the level of basic skills needed by employers and those available in the applicant pool is of great concern to the business community. Employers mentioned serious deficiencies in reading, writing, mathematics, and communication skills. Other areas of concern included critical thinking and problem solving skills, ability to work in teams or as a group, motivation and attitude, and flexibility. Promising practices used by businesses are described in 10 areas: employee involvement, child care, family and community concerns, recruiting, training, supervision, motivation, the new basics, business-education partnerships, and handicapped and special needs employees.

For too long, education, training, and workplace practices were regarded as someone else's problem: basic skills and training were the schools' problem; children were their parents' problem; workplace policies were business' or labor's problem. Now, society can no longer regard education, social welfare, and economic development problems as separate. Instead, society's ability to have an educated workforce, to protect children from poverty, to raise our quality of life and standard of living, and to increase productivity, rely in part on a recognition that social, educational, and economic gains are integrated. The attention paid to public education, to youth at risk, and to children in poverty affect the quality of America's future workforce and its ability to compete in the world marketplace. Policy makers have begun to acknowledge how interrelated their goals are: that investing in education and training is an economic development strategy as critical as job creation or retention strategies; that the new welfare programs designed to move clients successfully into the world of work depend on a workplace that accommodates the needs of families; that those preparing youth and adults for the world of work need to stay attuned to the changing needs of employers.

One of the primary purposes for this study of entry-level workers was to identify promising business practices affecting these employees. In considering promising practices, efforts were made to identify exemplary policies or procedures not already in common use that would be beneficial both to the individual worker and to the company. After discussing the findings, nine areas for promising practices were identified that other businesses may want to consider. These areas are: a) employee involvement, b) child care, c) family and community concerns, d) recruiting, e) training, f) supervision, g) motivation, h) business-education partnerships, and i) handicapped and special needs employees. Shown here is a sample of these promising practices.

Promising Practices

Employee Involvement

Rewards of bonus money
Conduct employee surveys
Offer cafeteria plan of benefits
Provide workers with decisionmaking opportunities
Offer child care assistance
Enhance worker skills

Child Care

Dependent care account
On-site child care center
Sick child care arrangements

Child care referral
Summer day care referral

Family and Community Concerns
Courses on issues of concern to women and minorities
Recognition and support for responsibilities outside work
Provide leadership for community responsibility

Recruiting
Minority organizations
Hire relatives of refugee employees
24-hour phone line
Bonuses for recommending family or friends who get hired
College scholarships
Bus passes or free parking
Drug testing

Training
Tuition reimbursement programs
In-house training programs
On-the-job training
Employee personal development course
Training passports
On-site or off-site language instruction
Remedial training in basic skills
Classes on customer relations
Team/group problem solving skills
Team building skills
Culture of the workplace

Supervision
Assign new employees to a buddy
Assign new employees to the team leader
Place individual team members responsible for supervision of new employees
Place supervisory training in different cognitive/communication styles

Motivation
Monthly attendance lottery with rewards
Profit sharing
Share of stock
Employee of the month
Pay bonuses
Promotions
Free trips
Cross-training

Business/Education Partnerships
Employees volunteer as tutors of at-risk students
Paid vocational technical courses (pre-employment, basic skills, manufacturing, etc.)
Summer internships for high school teachers
Work-experience for secondary students

Handicapped/Special Needs Populations
Refugees
Limited English speaking
 -paired with buddies
 -ESL instruction
Learning disabilities
 -works by himself/herself
 -one task at a time
 -instructions clearly explained one step at a time

The report also identified the implications of the study's findings for consideration by those responsible for providing education and training. Ten areas were cited: 1) new skills, 2) peer influence, 3) common purpose, 4) expanded learning opportunities, 5) involvement, 6) accountability, 7) cross-training, 8) special training, 9) career paths, and 10) business partnerships.

A copy of the complete report can be ordered from the NWREL Marketing Department, 101 S.W. Main Street, Suite 500, Portland, Oregon 97204, for $9.85 including shipping and handling.

"Facilitating Partnerships to Address Workforce Issues: A Pennsylvania Experience"

Carlton R. Berger
Executive Policy Specialist
Pennsylvania MILRITE Council

Abstract

The MILRITE Council is an eleven year old business, labor, and government partnership, formed in response to the deteriorating economic conditions affecting the state's industrial base and the adversarial labor-management climate of the late 1970s. Created in statute by the Pennsylvania General Assembly, the Council was charged with identifying the key barriers to economic development and presenting solutions through the cooperative efforts of business, labor, and government. MILRITE is an acronym which stands for Make Industry and Labor Right in Today's Economy. The Council relied on the partnership approach in all of its projects and spent the bulk of its years addressing such issues as assisting the development of advanced technology firms, developing new sources of growth and venture capital using pension fund monies, developing ways to encourage school cooperation committees to lessen strikes and improve the quality of education, and administering the Area Labor Management Committee Grant program which pursues cooperation between labor and management statewide. More recently, the Council has turned its attention to issues of human capital. In June 1989, the Council convened a forum "Maintaining Pennsylvania's Quality Workforce". The forum brought together fifty of the state's top business, labor, education, and government leaders to develop new strategies and ways to strengthen existing programs to meet the education and training needs of a quality labor force. The objective of this paper is to stimulate thinking among the audience about the potential for a similar partnership as MILRITE in their own states by describing the types of efforts this business, labor, and government partnership chose to become involved in and secondly to offer insight into how a regional forum on workforce issues might be accomplished. The common thread throughout the presentation will be the partnership approach to problem solving. This is a very appropriate approach for the 1990s because business, labor, government, and education must work in partnership to address and hopefully impact on the problems they helped to create. The paper also includes an overview of the workforce forum speakers and panelists' key points to give the reader a feel for what those close to the issues believe to be the major problems and potential solutions.

The idea for the MILRITE Council evolved from the deteriorating economic conditions which prevailed in the state during the mid and late 1970s. A mature and declining industrial base and a tradition of extremely adversarial labor-management relations combined to produce idle factories, dislocated workers, and depressed manufacturing regions. Labor problems were also growing as evidenced by the number of public and private sector work stoppages.

In recognizing these factors, the leaders of the AFL-CIO and the PA Chamber of Business and Industry met to discuss the state's economic future. What evolved from these discussions was a proposal for a business-labor-government council, created in statute and funded by state government. The council would serve as a forum for representatives of business, labor, and government to meet on a regular basis to address issues and problems facing Pennsylvania's economy.

The MILRITE Council was created in 1978 by legislative act. The makeup of the Council is a fifteen member body with fourteen members drawn from business, labor, and the General Asembly and one member named by the Governor. Each sector chooses its own representatives for membership on the Council.

Much of the Council's early work focused on analysis of the state's economy to identify trends and problems and initiate research and innovative programs aimed at stimulating economic development. One of the first initiatives resulted in the creation of the Ben Franklin Partnership. This $100 million program grew out of legislation developed by two representatives of MILRITE and has been described by some observers as "probably the most comprehensive economic development institution in the country." Four advanced technology centers across the state further business-academic partnerships for advanced technology projects. The $30 million state support for the program is leveraged with three times as much private sector money for a total of over $100 million available annually. MILRITE maintains an ongoing involvement in the operation of Ben Franklin Partnership by virtue of the Council chairperson's permanent seat on the Board of Directors.

The types of businesses involved in Ben Franklin Partnership projects, advanced technology firms, led the Council to create partnerships to address business financing problems. The Council developed legislation to allow the state's public pension pension funds to invest up to one percent of their total assets into venture capital in 1984.

100 BEST COPY AVAILABLE

The MILRITE Private Placement Fund is a partnership of public, private, and union pension funds to provide up to $72.5 million in loans to to mid-sized expanding firms.

In 1984, the Council was assigned responsibility for administration of the Area Labor-Management Committee (ALMC) Matching Grant program. The objective of this program is to help communities strengthen their economies through improved labor-management relations at the worksite and community levels by encouraging the formation of partnerships to create forums for business and labor to collaborate to reduce adversarial relationships. Presently, 13 committees receive $825 thousand from MILRITE.

In 1986, the Council was asked to determine if the Commonwealth could more effectively use its mediation services to discourage and shorten the duration of labor management disputes. One of the key preventive measures suggested was the creation of a statewide school labor management committee with the objective of reducing adversarial relationships and public school impasses and improving the quality of education. In 1987, the Governor established a Schools Cooperation Committee composed of top leadership of organizations representing public schools in PA.

Currently underway at MILRITE is a project to increase business competitiveness by improving the quality of products and services through employee involvement.

The second part of this paper involves the MILRITE forum held June 1: "Maintaining Pennsylvania's Quality Workforce." During a 1988 December strategic planning meeting, the Council turned its attention to the subject of the quality of the state's workforce and the shortage of skilled labor afflicting certain parts of the state. Whereas earlier economic development efforts focused largely on shortages of financial capital for business, the emphasis now has become more a problem of shortages of human capital, the most important capital in any economy.

Recognizing that no group had ever brought together the four sectors for a dialogue about workforce quality, MILRITE decided on a forum of 50 leaders. In developing an agenda, we decided to utilize the following format. We wanted to include speakers and panelists from each sector. The forum commenced with a keynote address followed by a panel discussion of a businessperson, labor leader, high school principal, and a state senator. Next we divided the participants into three brainstorming groups on issues relevant to workforce quality.

Potential participants were identified using MILRITE members and ALMC networks. Education sector participants were identified through staff of the House and Senate Education Committees and the Community College of Philadelphia, the organization which contributed the facilities for the forum.

Some of the key points of the various speakers at the forum will provide the reader a sense of what those close to the issue of workforce quality see as the main focuses.

The Director of the US Commission on Workforce Quality and Labor Market Efficiency offered remarks later reflected in the Investing in People report. Recommendations included: Presidential leadership in developing national education goals; continued efforts by the business community to work with schools; creation of incentives to inspire the best efforts of teachers, administrators, and students; and ecouragement of experimental restructuring of schools.

The report encouraged creation of a business environment that encourages employers to invest more in their workers, including lifetime education and training. The Commission also recommended: encouragement of flexible employment arrangements; assistance for employers and employees as they explore the potential gains from worker participation, innovative compensation arrangements, and pension portability; and a review of policies related to labor-management relations.

The high school principal believes that we need more programs which assist the transition of young people from school to work. Such transition programs require the cooperation of schools and businesses to increase apprenticeship opportunities, and provide community service work opportunities to allow interaction with people in the real world. He contends schools must include socialization as one of its major objectives and community service is one of the best ways to accomplish this goal.

Schools must find other ways besides parental support to motivate students to learn and behave in an acceptable fashion. He feels that teaching using books alone is not meaningful or well tolerated and evidence shows that hands on involvement and learning become synonymous. Community service learning, apprenticeships, and actual participatory activities become crucial to the learning process.

Business and education must become more flexible by diminishing bureaucracies and then effectively utilize the problems inherent in change as a spring board to future action.

The corporate panelist suggested an uncommon solution to a common problem: bringing people together from the 4 systems to analyze, identify, implement, and measure with a long range goal of continual improvement, the problems, issues, and opportunities associated with a quality workforce. The prime emphasis must be training, retraining, and more training.

The legislative panelist argues for a proactive approach to the problems. He stated "if we come out of this forum with nothing more than realizing the necessity for business and

education to work hand in hand with assistance from the government, we accomplish something."

The dinner speaker, from the National Alliance of Business, described the lessons learned from the Boston Compact, a business/education partnership where businesses are expected to supply jobs and the schools are expected to provide a better product. The experience has been mixed and the business community is now saying they made mistakes in the process such as not coordinating with public officials. Businesses are now requiring schools to restructure and decentralize as companies have in the past ten years if they are to remain involved.

Lessons learned from the experience include: most business people don't appreciate the magnitude of the education crisis; business people don't ask the same hard questions about running education as they do about their businesses; something different is needed to maintain the momentum of partnerships in the future; it's important for business people to coalesce among themselves on issues like school restructuring; the business community has left the governing of the schools; and business must work at the state level with chief state school officers, local school boards, elected officials, and build trust through joint actions.

The discussions of the groups reflected many of the issues just mentioned: a lack of dialogue between business and education and community; lack of flexibility in education; short term focus; lack of accesibility of training programs especially for unskilled and semi-skilled, difficulties with JTPA, and the need for businesses to identify job and skill needs and communicate those needs to schools; outreach to minorities through community service programs to increase contact between business and minorities. Other possible solutions include changes in child care and legal and tax systems.

In summary, this presentation has hopefully demonstrated the appropriateness of partnerships in attempting to deal with complex problems such as declining workforce quality.

HIGH-TECHNOLOGY TRAINING MODEL

HOWARD LEE J. TIMOTHY MERO ORVILLE NELSON

Abstract

This cooperative demonstration project being conducted by the University of Wisconsin-Stout is a collaborative effort between the public sector and public agencies in vocational education to establish a high-technology training model to meet the ongoing national skill shortages in business and industry. The project, being conducted in rural, West Central Wisconsin, involves the planning and cooperation of large and small business and industrial firms, three technical colleges, three Cooperative Education Service Agencies which include 12 local school districts, the State Department of Public Instruction and State Board of Vocational, Technical and Adult Education. The project is developing a model for effectively identifying high-technology training needs of business and industry, establishing a viable articulation network, isolating competencies that are relevant to secondary and postsecondary curricula, and facilitating direct implementation into on-going programs.

To be competitive in the world marketplace, technology is not enough. The nation must have the present and future labor force equipped with the high-technology competencies needed by business and industry. This calls for an innovative program that ensures that high-technology competencies are being taught at all levels of education to guarantee the prosperity of the nation.

To address these needs, the University of Wisconsin-Stout is working on a High-Technology Training Model Project funded as a Cooperative Demonstration Program from the Department of Education. The purpose of the project is to develop a model for effectively identifying high-technology training needs of business and industry and to use these needs to isolate competencies that are relevant to secondary and postsecondary curricula. The identified competencies were coordinated to establish an articulated network between educational systems and local business and industry. Continuous involvement by local education agencies (LEA's) and vocational, technical and adult education (VTAE) districts ensure that the needs of business and industry are being addressed.

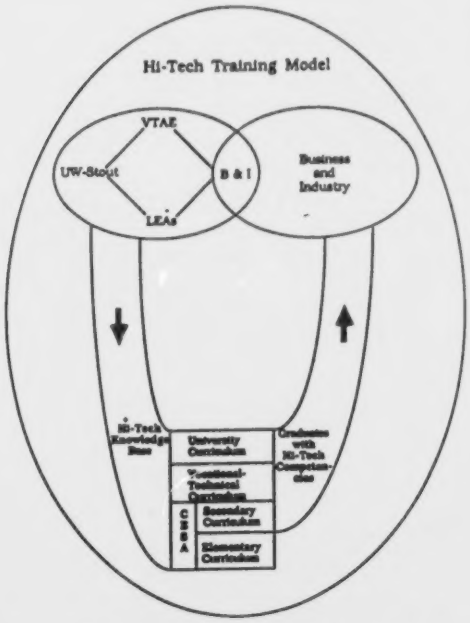
Based on the identified needs, training programs will be designed and conducted for business and industry, and concurrently, potential curriculum modifications will be communicated to technical colleges and local school districts. This coordination is critical for establishing an educational base for including the identified competencies in the educational programs at the secondary and postsecondary levels.

The model will establish a networking system that will identify the current and projected, local high-technology skill needs of business and industry and articulate these needs to the secondary and postsecondary educational systems.

A graphic conception of the high-technology training model is given in figure 1. Cooperative efforts of individuals in business and industry and education,

identify training needs in business and industry. This knowledge base is be used to design valid training programs for B/I. In addition, this knowledge base is utilized to identify new content requirements for elementary, secondary and postsecondary programs.

FIGURE 1: HIGH-TECHNOLOGY TRAINING MODEL



During the past fifteen years there have been a number of significant changes and events that have had major impacts on business and industry. In the mid-seventies the rapid escalation of oil prices created energy shortages, escalated the cost of most goods and services, and helped to push our economy into a recession.

Within that same time frame we have become a part of a global marketplace. Our manufacturers and many of our services providers must compete not only with other companies in the United States, but with products and services imported from a variety of international companies. To be profitable in this marketplace, U.S. companies must also export and be competitive in a variety of foreign markets.

In addition to these changes, there has been a rapid change in the technology used in business and industry. The application of technology has not been the sole province of the United States. In fact, several other countries often lead us in the application of new technology.

It was within this context that UW-Stout became active in economic development and technology transfer. In the early 1980's many manufacturing companies in Wisconsin faced significant problems in being competitive in the international marketplace and with products imported from other countries. For example, the J.I. Case plant in Wausau, Wisconsin had to become more efficient in order to compete with foreign manufacturers. Unless the plant became more productive and efficient, there was a real possibility that production would be shifted off shore.

UW-Stout, with the aid of a state grant, worked with the staff at J.I. Case in Wausau to implement a new manufacturing system. A staff member from the School of Industry and Technology at UW-Stout worked almost full time within the J.I. Case plant at Wausau to institute the value added manufacturing (VAM) system.

As the system was implemented there was a need for additional technical assistance. The project provided two engineers who worked full time at J.I. Case. Also, several UW-Stout students majoring in industrial technology completed their cooperative education experiences at the J.I. Case plant. Another facet of the development was the need for technical training. As the system was implemented, needs analyses were conducted to determine the types of staff competencies required to operate it.

UW-Stout and Northcentral Technical College in Wausau designed the training program and a variety of sources to include members of the corporate staff, as well as outside consultants, were employed to deliver training programs required to develop the necessary competencies. The areas of interaction and assistance included:

- o CAD--Plant layout and all development
- o Work standards and process routing
- o Automated material handling
- o Industrial simulation
- o Just-in-time manufacturing
- o Material analysis/dynamic nesting
- o CNC programming
- o Management and technical training

- o Market analysis/option packaging
- o Air quality analysis
- o Robotic and other flexible automation

The project turned out to be a real success story, and VAM was a critical element. Products produced at the plant have become competitive in a worldwide marketplace, and the number of employees at the plant has increased significantly. Moreover, the project illustrated how industry and education can work together for mutual benefit.

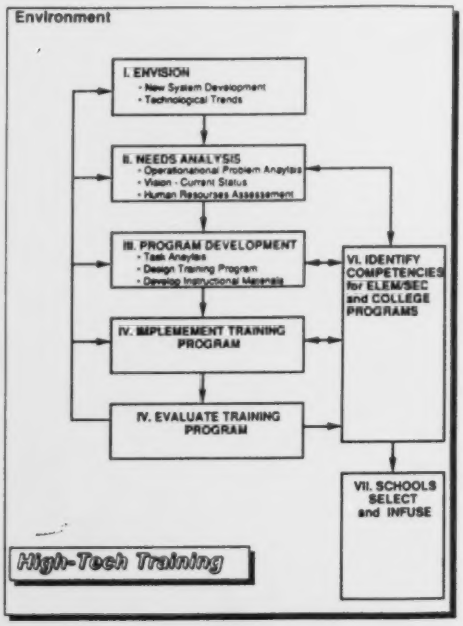
As the J.I. Case/UW-Stout project progressed, it became apparent that there was a significant knowledge base being created as a result of these activities. First, we were learning how several institutions could work together effectively even though their purposes, organizations, and goals were somewhat different. The people involved worked to find the common ground between the various groups involved. Second, the competencies required to operate new manufacturing and management systems were being identified and refined.

The identified competencies were those required to operate new management systems and technology in the plant. We thought that it would be unfortunate if this knowledge base were overlooked and lost in the process. Therefore, one of the major goals of the High-Technology Training Model Project is to determine ways in which the training needs analyses and training done in business/industry can be used to identify competencies which have relevance for elementary, secondary and postsecondary educational programs.

The High-Technology Training Model Project has several major components. These components are depicted in Figure 2. They include:

- o Build techniques that can be used to effectively identify the new competencies needed in business and industry.
- o Devise ways to foster interaction between educators and people in business and industry in order to more clearly identify the types of competencies needed in business and industry.
- o Develop processes to determine where these competencies fit in school programs and design relevant instructional materials.
- o Improve the processes used to design and provide training programs in business and industry.

FIGURE 2: HIGH TECHNOLOGY TRAINING DEVELOPMENT FLOWCHART



The High-Technology Training Model Project was based on the successful training programs at J.I. Case and another project with SNE-Crestline. The current high-technology project has demonstrated that this knowledge base can be effectively used for these purposes. Projected staff are now working to develop more effective procedures and processes for joint business/industry, labor and education participation in determining training needs, isolating new competencies required of workers, and designing training and educational programs.

As part of the project, staff members and participating teachers have conducted interviews of local business and industry to identify new technology and management systems that are being used. Also, three surveys have been conducted to further identify areas in which training is being done, how it is

being accomplished, and the extent to which educational institutions are participating in these training activities. Companies were also asked to identify the important characteristics of a good training program and the barriers they encounter when trying to work with an educational institution in providing training.

Our surveys and interviews have identified that cross sectionally, the following areas have been receiving the most attention in business and industry training.

- o Quality control
- o Specific technical training
- o Computer usage/applications
- o Problem solving
- o Interpersonal skills
- o Participatory management
- o Self-management teams
- o Train the trainer
- o Career planning
- o Automated manufacturing
- o Basic literacy
- o International marketing

Participating teachers at all levels in a variety of subject areas (English, math, science, technology education, business education, etc.) have visited local business and industry to identify needed competencies. Many had never visited business and industry before to identify content for their courses. The information learned was found to be beneficial to both the teachers and business and industry. Teachers at the secondary and postsecondary level also participated in a curriculum workshop, where industry representatives and educators spoke on relevant business, industry and education issues related to high-technology. Each of these teachers is presently engaged in the development of a module which is based on needs identified in business and industry. The modules will be pilot tested, revised and shared with all participants of the project. Teachers will also share information gleaned from business and industry with staff members and students at their local school. An additional component of the project requires the participating technical colleges to train technical workers in specific skills based on needs identified by business and industry.

Significant involvement is assured by having a representative advisory committee and a high-technology forecasting committee providing direct and continuous input for the project. The participation by these various components were assured by the letters of agreement between UW-Stout and the participating educational agencies. Educational agencies have made considerable effort to work together and with business and industry to keep the work force up-to-date. Keeping present and future works up-to-date will require further cooperation among agencies and focused effort in specific areas. This project proposes to have education work closer with business and industry than ever before. Business, industry and education will collaborate to identify high-technology competencies employees need, provide on-the-job training for these competencies, and infuse instruction of these competencies in elementary, secondary and postsecondary educational programs.

The project outcomes will establish a transportable model which can be adopted/adapted by other sectors of the state and nation. Application of the model will facilitate maintaining a responsive work force and the curriculum content of secondary and postsecondary educational systems which is in concert with current business and industry needs. The involvement of appropriate state agencies and institutions ensures that instruction on high-technology competencies is included in school curriculum as a focused effort to keep educational programs current with technological developments. The High-Technology Training Model Project will result in a handbook (to be published) describing the procedures to be implemented for establishing an interactive network between the private sector, public agencies, and vocational education focused on the national high-technology skill needs for a competitive national work force.

The High-Technology Training Project is funded as a cooperative demonstration program from the Department of Education under grant number V1999A90151. For more information contact the Center for Vocational, Technical and Adult Education (CVTAE) at UW-Stout. Dr. Orville Nelson, Project Director, (715) 232-1362 or Tim Mero, Research Associate, (715) 232-3793.

HUMANIZING WORK: THE CHALLENGE FOR EMPLOYERS, MANAGERS & MANAGER TRAINERS

DONALD BAUGHMAN, PH D.

ABSTRACT

BUILDING AND MAINTAINING A QUALITY WORKFORCE IN THE 21ST CENTURY IS DEPENDENT ON RECOGNIZING RADICAL CHANGES IN HOW WE THINK ABOUT WORK, WORKERS, THE WORKSITE AND THE COMMUNITY AND SOCIETY IN WHICH ALL OF THESE COMPONENTS EXIST. NEW MODELS OF MANAGEMENT AND TRAINING ARE NEEDED THAT ARE CONSISTENT WITH OUR EVOLVING WORLDVIEW AND CHANGING HUMAN NEEDS. HUMANISTIC PSYCHOLOGY AND SYSTEMS THEORY PROVIDE GUIDING VALUES, PROCESSES AND SKILLS FOR EDUCATING, TRAINING AND MANAGING A QUALITY WORKFORCE IN THE 21ST CENTURY. THIS PRESENTATION APPLIES KEY CONCEPTS FROM SYSTEMS THEORY AND HUMANISTIC PSYCHOLOGY TO THE EVOLVING ROLE OF MANAGEMENT AND DISCUSSES THE IMPLICATIONS OF NEW MANAGEMENT ROLES FOR THE EDUCATION, TRAINING, AND SELECTION OF MANAGERS.

I. INTRODUCTION

THE UNDERLYING PRINCIPLES AND PROCESSES FOR BUILDING A QUALITY WORKFORCE AND FOR HUMANIZING WORK ARE NOT MYSTERIOUS OR DIFFICULT TO UNDERSTAND. THEY ARE THE SAME PRINCIPLES AND PROCESSES THAT FORM THE FOUNDATION OF POSITIVE, GROWTH-PROMOTING HUMAN RELATIONSHIPS AND THAT OPERATE IN ALL THRIVING ORGANISMS OR SYSTEMS.

ONE OF MY EARLIEST FORMAL LESSONS IN THESE PRINCIPLES AND PROCESSES OCCURRED IN A FIRST-GRADE SCIENCE EXPERIMENT IN WHICH WE PLANTED TOMATO SEEDS IN LITTLE CUPS OF POTTING SOIL, HOPING TO RAISE TOMATOES. NOTHING HAPPENED FOR A LONG TIME. ONE CHILD, UNABLE TO CONTAIN HIS IMPATIENCE ANY LONGER, DUG AROUND IN THE DIRT TO SEE IF ANYTHING WAS HAPPENING. THE SEED HAD SPROUTED BUT, BEING TORN FROM ITS LIFE-GIVING RELATIONSHIP WITH ITS ENVIRONMENT, SOON WITHERED AND DIED. A FEW DAYS LATER, SOME OF THE PLANTS STARTED TO COME UP AND WITHIN A WEEK OR SO, THEY ALL WERE UP AND, THOUGH LOOKING ALIKE, EACH WAS DIFFERENT. EACH PUT FORTH ITS SHOOTS AND LEAVES IN ITS OWN WAY. WE EACH HAD NO DIFFICULTY RECOGNIZING OUR OWN UNIQUE TOMATO PLANT FROM ALL THE OTHERS. WE WERE BEGINNING TO LEARN GROWTH IS A PROCESS, NOT AN EVENT; THAT YOU CAN'T PREDICT THE SPECIFIC TIME, DIRECTION, OR EXACT NATURE OF GROWTH; THAT GROWTH SEEMS TO HAPPEN FROM WITHIN AND, ALTHOUGH YOU CAN'T KNOW WHEN OR WHERE OR HOW, YOU CAN TRUST THE PROCESS.

EACH CHILD CARED FOR HIS/HER TOMATO PLANT IN HIS/HER OWN WAY. SOME LOST INTEREST AND NEGLECTED TO WATER THEIR PLANTS. OTHERS WATERED THEIRS 2-3 TIMES A DAY, OFTEN "PETTING" THEIR PLANTS IN THE PROCESS. MOST ATTEMPTED TO FOLLOW THE TEACHER'S GUIDELINES OF ONLY WATERING EVERY FEW DAYS AND KEEPING THE PLANTS IN PARTIAL SUN. WE SAW PLANTS, EVEN UNDER THE MOST UNPREDICTABLE AND HARSH CONDITIONS CONTINUE TO STRIVE TO REACH THEIR INNATE POTENTIALITIES. WE SAW PLANTS UNDER OPTIMAL CONDITIONS THRIVE AND EXCEED THE TEACHER'S AND SEED COMPANY'S INITIAL ESTIMATES OF THEIR POTENTIAL. WE WERE TAUGHT THE BASICS OF PHOTOSYNTHESIS AND HOW PLANTS USE UP CARBON DIOXIDE AND CREATE OXYGEN. WE WERE BEGINNING TO LEARN ABOUT THE ONGOING INTERACTION OF LIVING THINGS AND THEIR ENVIRONMENT; HOW EVERYTHING EFFECTS EVERYTHING ELSE. ONE CHILD, DETERMINED TO PUSH HIS PLANT'S DEVELOPMENT

BEYOND ANY OTHER PLANT IN THE ROOM, BROUGHT IN SEVERAL PLANT FOOD SPIKES, SURROUNDED THE YOUNG PLANT WITH THEM, AND WATERED IT HEAVILY. WITHIN A FEW DAYS THE PLANT TURNED BROWN AND WITHERED. HE HAD NURTURED AND NOURISHED THE PLANT THE WAY HE THOUGHT IT SHOULD BE NURTURED AND NOURISHED WITHOUT REGARD FOR WHAT THE PLANT ACTUALLY NEEDED.

BEFORE SEMESTER'S END, THE WELL-CARED-FOR TOMATO PLANTS HAD ACHIEVED FULL DEVELOPMENT, BOUNTIFULLY GIVING US FRUIT AND THE SEEDS THAT WOULD INSURE FUTURE TOMATOES INDEFINATELY. THEN THE PLANTS SLOWLY WITHERED AND DIED. WE WERE LEARNING ABOUT THE EVER-PRESENT CYCLES OF BIRTHING AND DYING, BEGINNINGS AND ENDINGS -- THE ONGOING CHANGE OF LIVING THINGS.

IN RETROSPECT, IT SEEMS STUDENTS TENDED TO ACT TOWARD THEIR TOMATO PLANTS IN ACCORDANCE WITH THEIR MODEL OR WORLD-VIEW OF PLANTS. HOW THEY THOUGHT ABOUT THIS GROWING THING INFLUENCED HOW THEY RELATED TO IT AND THIS HAD PROFOUND CONSEQUENCES FOR THE ULTIMATE OUTCOMES. IT IS NO DIFFERENT IN ANY FIELD OF HUMAN ENDEAVOR. OUR PREFERRED MODELS, PARADIGMS, THEORIES, AND WAYS OF THINKING BOTH GUIDE AND LIMIT OUR EXPERIENCE AND POTENTIAL FOR ACTION. YET, ONCE WE ASSUME SUCH MODELS, THEORIES AND PARADIGMS, WE TEND TO ACT AS IF THERE IS NO OTHER SANE WAY TO EXPERIENCE, THINK ABOUT OR ACT IN A GIVEN SITUATION. YET OUR FACTS, OUR TRUTHS, ARE SIMPLY THEORIES TO WHICH WE HAVE BECOME SUFFICIENTLY ACCUSTOMED (KUHN, 1974). ANY CHANGE OR RE-EVALUATION OF AN ORGANIZATION'S OR CULTURE'S "FACTS AND TRUTHS" IS USUALLY ACCEPTABLE IN DIRECT PROPORTION TO THE DEGREE THAT THE CHANGE OR INNOVATION DOES NOT REQUIRE A CHANGE IN THE ROLES OR SOCIAL ORGANIZATION OF THAT GROUP OF PEOPLE. FOR SOME EMPLOYERS, MANAGERS AND TRAINERS THIS MAY MAKE BUILDING A QUALITY WORKFORCE FOR THE 21ST CENTURY THROUGH HUMANIZING WORK A CHALLENGE THEY ARE UNWILLING OR UNABLE TO UNDERTAKE. FOR THIS CHALLENGE INVOLVES SOMEWHAT RADICAL/REVOLUTIONARY CHANGES IN OUR VALUES AND BEHAVIORS IN ORGANIZING, MANAGING, AND TRAINING WORKERS. IT WILL ASK MANY TO OPERATE QUITE DIFFERENTLY THAN THE WAY THEY HAVE BECOME ACCUSTOMED TO OPERATING AS MANAGERS, TRAINERS, EMPLOYERS, AND EMPLOYEES. WE MUST OVERCOME THE HUMAN TENDENCY TO BLINDLY WANT WHAT WE KNOW RATHER THAN EXPLORING THE POTENTIAL OF KNOWING WHAT WE REALLY WANT.

THE PRINCIPLES AND MODELS OF SYSTEMS THEORY AND HUMANISTIC PSYCHOLOGY OFFER FERTILE GROUND FOR RE-THINKING THE VALUES, PROCESSES, AND SKILLS THAT WILL BE NECESSARY FOR CREATING A QUALITY WORKFORCE IN THE 21ST CENTURY.

II. KEY CONCEPTS FROM SYSTEMS THEORY

A SYSTEM IS A COMPLEX OF COMPONENTS IN MUTUAL INTERACTION. ANY ORGANIZATION OR ORGANISM IS A SYSTEM (VON BERTALANFFY, 1966). THE STATE OF A SYSTEM OR CHARACTERISTICS OF A SYSTEM AT A POINT IN TIME REFERS TO THE RULES, FUNCTIONS AND PROCESSES WHICH RELATE THE PARTS OF THE SYSTEM TO ONE ANOTHER. THIS SET OF RULES, FUNCTIONS AND PROCESSES IS THE STRUCTURE OF THE SYSTEM AND THE MEANS BY WHICH THE SYSTEM IS CREATED, DEFINED, MAINTAINED, ALTERED AND TERMINATED (BATTISTA, 1977). ANY ORGANIZATION FUNCTIONS AS A SYSTEM.

WHOLENESS OR NONSUMMATIVITY MEANS THE WHOLE IS MORE THAN THE SUM OF THE PARTS WITH THE PARTS BEING SO INTERRELATED AND INTERDEPENDENT THAT NO PART CAN BE UNDERSTOOD IF CONSIDERED IN ISOLATION FROM THE WHOLE. THE WHOLE DETERMINES THE NATURE OF THE PARTS FOR "THE PROPERTIES OF A SYSTEM ARE AS MUCH A FUNCTION OF THE WAY IN WHICH THE SYSTEM'S PARTS ARE RELATED TO ONE ANOTHER AS THEY ARE A FUNCTION OF THE ACTUAL PROPERTIES OF ITS PARTS." (BATTISTA, 1977). THERE ARE NO INDEPENDENT VARIABLES IN A SYSTEM. CONSEQUENTLY, A CHANGE IN ONE PART OF THE SYSTEM RESULTS IN A CHANGE IN ALL THE OTHER PARTS AND IN THE TOTAL SYSTEM. TO UNDERSTAND THE SYSTEM ONE MUST UNDERSTAND THE DYNAMIC PATTERNS OF INTERACTION AND INTERRELATIONSHIP OF ITS PARTS. CHANGING THESE PATTERNS CHANGES THE SYSTEM. THERE ARE ALSO LEVELS OF SYSTEMS OR SYSTEMS "NESTED" WITHIN SYSTEMS SUCH THAT EACH SYSTEM MAY FUNCTION AS A PART IN THE NEXT LARGER SYSTEM. FOR EXAMPLE, THE INDIVIDUAL WORKER IS A SYSTEM, WITHIN THE SYSTEM OF AN IMMEDIATE WORK GROUP, WITHIN THE SYSTEM OF A DEPARTMENT, WITHIN THE SYSTEM OF A COMPANY.

CIRCULAR CAUSALITY OFFERS AN ALTERNATIVE TO SIMPLE STIMULUS-RESPONSE AND LINEAR CAUSE-EFFECT MODELS (WATZLAWICK, 1976). IN CIRCULAR CAUSALITY MODELS EACH EVENT, BEHAVIOR, OR PROCESS IS SIMULTANEOUSLY A STIMULUS, RESPONSE, AND REINFORCEMENT. THERE ARE MULTIPLE SIMULTANEOUS INTERACTIONS, MULTIPLE CAUSES, MULTIPLE PERSPECTIVES DETERMINED BY THE OBSERVOR'S VIEW OF THE DYNAMIC PATTERNS OF INTERACTION BETWEEN SYSTEM PARTS. ATTEMPTING TO ESTABLISH CAUSE OR BLAME AS RESIDING IN A SINGLE SYSTEM PART IS NOT ONLY USUALLY UNHELPFUL, IT IS ALSO A DISTORTION OF SYSTEMS REALITY. CHANGING A SYSTEM PART DOES NOT CHANGE A SYSTEM UNLESS WE CHANGE THE PROCESSES BY WHICH SYSTEM PARTS RELATE TO EACH OTHER. THIS OPENS THE POTENTIAL FOR MULTIPLE PERSPECTIVES AND OPTIONS FOR PROMOTING SYSTEMS CHANGE.

OPEN SYSTEMS RECOGNIZE THE PRINCIPAL OF EQUIFINALITY WHICH, SIMPLY STATED, IS THAT THE "SAME FINAL STATE MAY BE REACHED FROM DIFFERENT INITIAL CONDITIONS AND IN DIFFERENT WAYS" (VON BERTALLANFFY, 1956). IN THE OPEN SYSTEM THERE IS THE POTENTIAL FOR CHOICE AND CHANGE IN THE PROCESSES AND RELATIONSHIPS RELATING SYSTEM PARTS TO ONE ANOTHER. THIS ALLOWS DIFFERENT

RESULTS FROM THE SAME INITIAL CAUSES. FOR EXAMPLE, IN A CLOSED SYSTEM A WORKER BRINGS A MANAGER A PRODUCTION PROBLEM. THE MANAGER IS CLEARLY DISTRESSED AND IMMEDIATELY TRIES TO ESTABLISH WHAT WENT WRONG AND WHO'S RESPONSIBLE (CAUSE AND BLAME) SO SHE/HE CAN REPRIMAND THE GUILTY AND MAKE THEM RESPONSIBLE FOR "FIXING IT" THEREBY RETURNING THE SYSTEM TO THE STATUS QUO. IN AN OPEN SYSTEM THE MANAGER IS PLEASED THE WORKER HAS BROUGHT A PROBLEM TO HIS/HER ATTENTION. THEY KNOW THE PROBLEM IS SIMPLY GIVING THEM VALUABLE INFORMATION ABOUT WHAT'S WORKING AND NOT WORKING WELL IN THE ORGANIZATION. THEY EXPLORE THE PROBLEM IN THE CONTEXT OF ALL INVOLVED SYSTEM PARTS AND PROCESSES (EVERYONE CONCERNED IS LISTENED TO) TOWARD THE GOAL OF SEEKING CREATIVE NEW PROCESSES AND INTERACTION PATTERNS TOWARD DEVELOPING A SYSTEM THAT EXCEEDS THE PERFORMANCE OF THE STATUS QUO AND PREVENTS OR LIMITS FUTURE OCCURRANCES OF THE SAME PROBLEM. THE OPEN SYSTEM ENCOURAGES AND SUPPORTS RELATIONSHIPS AND PROCESSES THAT LEAD TOWARD GREATER DIFFERENTIATION, GROWTH, DEVELOPMENT AND CREATIVITY. IT IS OPEN TO POSITIVE SYSTEM EVOLUTION THROUGH NEW WAYS OF DOING AND BEING.

CLOSED SYSTEMS THAT OPERATE PRIMARILY ON LINEAR CAUSE-EFFECT MODELS IN ATTEMPTING TO CONTROL THINGS HAVE LED US TO SOME LARGE SCALE, LIFE-LIMITING PARADOXES. IN MEDICINE AND HEALTH CARE WE SPEND EVER-INCREASING DOLLARS WITH EVER-POORER RETURNS IN OUR NATION'S HEALTH. PART OF THE PROBLEM IS OUR PURSUIT OF THE ILLUSION THAT MEDICINE HEALS. MEDICINE DOES NOT HEAL. THE BODY HEALS AND WE ARE SLOWLY FINDING OUT THAT MANY SYSTEM PARTS ARE NOT HONORED BY MEDICAL APPROACHES (I.E., OUR THOUGHTS, BELIEFS, FEELINGS, SOCIAL RELATIONSHIPS, DIETS, LIFESTYLE PATTERNS AND SPIRITUALITY) ARE INTEGRAL TO THE HEALING PROCESS. IN AGRICULTURE EVER-GREATER EXPENDITURES ON CHEMICALS AND TECHNOLOGY LEAVES OUR FOOD LESS HEALTHY AND OUR PRODUCTION CAPABILITY MORE VULNERABLE BECAUSE WE PURSUE THE ILLUSION THAT FARMERS GROW FOOD. IT IS THE EARTH THAT GROWS FOOD AND IF WE DON'T LEARN TO HONOR THE RELATIONSHIPS AND PROCESSES INHERENT IN THAT SYSTEM, WE WILL SLOWLY DESTROY FOOD PRODUCTION CAPABILITY ON EARTH. FINALLY, WE SPEND MORE AND MORE ON DEFENSE AND ARE LESS AND LESS ABLE TO DEFEND OURSELVES WHILE REFUSING TO MAKE ANY SIGNIFICANT INVESTMENT IN THE RELATIONSHIPS AND PROCESSES THAT ARE THE FOUNDATION OF PEACE BETWEEN PEOPLE AND THE SYSTEMS TO WHICH THEY CLAIM ALLEGIANCE.

III. KEY CONCEPTS FROM HUMANISTIC PSYCHOLOGY (TAGESON, 1982)

THE PHENOMENOLOGICAL APPROACH OF HUMANISTIC PSYCHOLOGY STRESSES THE INDIVIDUAL'S UNIQUE EXPERIENCE OF REALITY AND THE IMPORTANCE OF UNDERSTANDING THE INTERNAL FRAME OF REFERENCE OF THE PERSON. THIS REQUIRES AN EFFORT OF TOTAL LISTENING TO THE OTHER PERSON TO EXPERIENCE WHAT THEY ARE EXPERIENCING; TO UNDERSTAND WHAT IT IS LIKE TO BE THEM IN THIS POINT IN TIME. THERE MUST BE AN OPENNESS TO MULTIPLE PERSPECTIVES AND MULTIPLE AND EVEN CONTRADICTORY TRUTHS, IN A SPIRIT OF ACCEPTING AND AFFIRMING HOW THE OTHER IS DIFFERENT FROM YOU.

HUMANISTIC PSYCHOLOGY ACCEPTS THE SYSTEMS THEORY CONCEPT OF WHOLENESS -- THAT THE WHOLE IS GREATER THAN THE SUM OF ITS PARTS AND THE WHOLE CAN ONLY BE UNDERSTOOD BY EXPLORING THE RELATIONSHIPS AND PROCESSES BETWEEN THE PARTS. THE POWER OF EACH PART IS IN ITS RELATIONSHIPS AND PROCESSES WITH ALL THE OTHER PARTS. A SIGNIFICANT CHANGE IN A PARTICULAR PART AND PROCESS CAN CHANGE THE WHOLE. THE IMPLICATIONS FOR PEOPLE SYSTEMS ARE THAT MAXIMUM DEVELOPMENT OF EACH PART FACILITATES MAXIMUM DEVELOPMENT OF THE WHOLE AND POSITIVE RELATIONSHIP PROCESSES SUCH AS ENCOURAGEMENT, AFFIRMATION, RESPECT AND DIGNITY FOR THE UNIQUE CONTRIBUTION OF EACH PART INCREASES THE PERFORMANCE AND POTENTIAL OF THE WHOLE.

THE ACTUALIZING TENDENCY REFERS TO THE POSITIVE FORCE IN ALL PEOPLE TOWARD GROWTH, DEVELOPMENT AND REALIZATION OF THEIR FULL POTENTIAL. HUMAN BEINGS ARE NOT STATUS QUO ORGANISMS. THEY POSSESS A POTENTIAL (A WILL) AND DRIVE (OR STRIVING) TO CREATE, TO LEARN, TO EXPLORE, TO KNOW, TO FIND MEANING, TO LOVE, TO CONTRIBUTE, AND TO SHARE. BECAUSE HUMAN NATURE IS BASICALLY GOOD, THIS DRIVE TOWARD POSITIVE GROWTH, DEVELOPMENT, AND POTENTIALITY CAN BE TRUSTED IN EACH INDIVIDUAL. THE TASK OF A LEADER (OR MANAGER) IS TO ENCOURAGE AND NURTURE THIS ACTUALIZING TENDENCY TO GET PEOPLE FROM WHERE THEY PRESENTLY ARE TO WHERE THEY HAVE NEVER BEEN -- TO GET ORDINARY PEOPLE TO DO THE EXTRAORDINARY. TO THE EXTENT EACH PERSON BECOMES ALL SHE/HE CAN BE (I.E., FULLY-FUNCTIONING IN REALIZING THEIR MANY POTENTIALS) THE ORGANIZATION BECOMES ALL THAT IT CAN BE. IN ACCORDANCE WITH CIRCULAR CAUSALITY THIS IS AN ONGOING INTERACTIVE PROCESS IN GROWING, VIBRANT, HEALTHY ORGANIZATIONS. UNFORTUNATELY, LEADERS/MANAGERS WHO ARE NOT FACILITATING THIS PROCESS IN THEIR OWN LIVES DON'T JUST GET IN THE WAY OF OTHERS BUT, DUE TO THEIR KEY POSITION IN THE SYSTEM, THEY ACTIVELY THWART THIS CREATIVE, ENHANCING PROCESS IN THE ORGANIZATION.

A CLOSELY RELATED KEY CONCEPT TO THE ACTUALIZING TENDENCY IS SELF-DETERMINATION. ON A GLOBAL LEVEL, AS FAR AS WE KNOW, HUMAN BEINGS ARE THE FIRST SPECIES ON PLANET EARTH TO CONSCIOUSLY EFFECT THE DIRECTION OF THE DEVELOPMENT OF THEIR WORLD AND THEIR OWN POTENTIAL TO SURVIVE. ON AN INDIVIDUAL LEVEL, THE PRINCIPLE OF SELF-DETERMINATION ASSUMES EACH PERSON

HAS THE CAPACITY TO DETERMINE THEIR OWN BEST CHOICES AND TO MOBILIZE THE NEEDED RESOURCES TO POSITIVELY RESOLVE THEIR OWN PROBLEMS. EACH PERSON IS ABLE TO BE AN ACTOR, NOT JUST A REACTOR, TO BE SELF "RESPONSE ABLE", AND TO OPERATE FROM AN INTERNAL LOCUS OF EVALUATION AND MOTIVATION. RECOGNITION OF THIS PRINCIPLE IN ACTION IN ORGANIZATIONS LEADS FROM A SELF-DENYING TO A SELF-FULFILLING WORK ETHIC WHERE EMPOWERED WORKERS CREATE AN EMPOWERED ORGANIZATION. EACH EMPLOYEE IS TREATED AS AN EQUAL ADULT WITH RESPECTED UNIQUE EXPERTISE FULLY CAPABLE OF SELF-MANAGEMENT AND QUALITY CONTROL. THOSE WHO IMPLEMENT THE PLANS MAKE THE PLANS IN AN ATMOSPHERE OF COLLABORATIVE PROBLEM-SOLVING, CONSENSUS DECISION-MAKING AND EQUITABLY-SHARED REWARDS. EACH HAS A RESPONSIBLE ("RESPONSE ABLE") ROLE THAT EXERCISES THEIR UNIQUE TALENTS AND CAPABILITIES IN A DEVELOPING WAY. THERE IS AN ASSUMED SYNERGY BETWEEN INDIVIDUAL BEST-INTEREST AND ORGANIZATION BEST-INTEREST. THE MANAGER/LEADER IS NOW MORE INTERESTED IN FACILITATING, DEVELOPING, AND LEARNING THAN SHE/HE IS IN CONTROLLING.

FINALLY, THE PERSON-CENTERED FOCUS OF HUMANISTIC PSYCHOLOGY SUPPORTS THE PREMISE THAT THE MOST IMPORTANT RENEWABLE RESOURCE IN ORGANIZATIONS ARE THE WORKERS OR EMPLOYEES. VALUING THE INDIVIDUAL, UNIQUE PERSON AND THEIR DEVELOPMENT IS NOT ONLY MORALLY SOUND BUT IT IS GOOD BUSINESS. PERSON-CENTERED POLICIES, PROCEDURES, AND STRUCTURES CREATE AND SUSTAIN POWER, POTENTIAL AND DEVELOPMENT IN ALL PARTS OF THE ORGANIZATION THEREBY MAXIMIZING THESE POTENTIALS IN THE ORGANIZATION AS A WHOLE.

THE FOLLOWING TABLE (CHANGING VALUES IN NEW MANAGEMENT/MODELS) ATTEMPTS TO ELUCIDATE THE DIRECTION OF CHANGE NECESSARY IN ORGANIZATIONS INTERESTED IN HUMANIZING WORK THROUGH OPERATIONALIZING THE ABOVE VALUES, PROCESSES AND CONCEPTS OF SYSTEMS THEORY AND HUMANISTIC PSYCHOLOGY. FOR DESCRIPTIVE PURPOSES THIS CHART SETS UP AN EITHER/OR OPPOSITION BETWEEN TRADITIONAL MANAGEMENT AND ADMINISTRATION AND HUMANISTIC MANAGEMENT AND ADMINISTRATION APPROACHES. IN REALITY, THERE ARE GIFTS AND LIMITATIONS IN ANY APPROACH ESPECIALLY WHEN TAKEN TO THE EXTREME. CONSEQUENTLY, A PRODUCTIVE GOAL MAY BE TO HAVE SOME LEVEL OF BALANCE AND CHOICE IN APPROACH IN ORDER TO BEST ACHIEVE DESIRED SHORT AND LONG-TERM OUTCOMES. HOWEVER, HISTORICALLY, MOST U.S. ORGANIZATIONS HAVE TENDED TO OPERATE OVERWHELMINGLY IN THE "TRADITIONAL MODE" WHICH CAN SERIOUSLY HAMPER POSITIVE PRODUCTIVITY, GROWTH, DEVELOPMENT, AND HEALTHY DAILY LIVING FOR THE ORGANIZATION AND ITS MEMBERS, AS WELL AS THE ENVIRONMENTS AND COMMUNITIES IN WHICH THEY EXIST.

IV. Changing Values In New Management Models

Table I

Traditional Management & Administration	vs.	Humanistic Management and Administration
A. Focus on products and outcomes		A. Focus on processes, relationships and services
B. Dominance/Hierarchy/Separation *us-them; win-lose *divide and conquer *one-up/one-down relationships *exclusivity		B. Equality/Cooperation/Connection *we; both win *unite in common purpose *mutual and equal relationships *inclusivity
C. Decision-making by the powerful *orders and directives *hired hands *imposed solutions *outside accountability		C. Consensus decision-making *facilitation of shared solutions *professional partners *collaborative problem-solving *self- and mutual-accountability
D. Responsible for others *problems = blame & return to status quo *problems are "headaches" *avoid problems *fear risk-taking		D. Responsible to/with others *problems = mutual accountability & new options *problems are gifts/opportunities *learn from problems (let them teach you) *encourage responsible risk-taking
E. Professional managers *power and authority from without *external standards *the elite few		E. Lay managers *power and authority from within *internal quality control *every employee a manager
F. Motivation by external rewards and punishments *self-denying work ethic *forced trust and committment *focus on productivity/profit		F. Motivation by internal interests and self-fulfillment *work as personal fulfillment *mutual trust and committment *focus on quality/service
G. The owners and the owned		G. Joint ownership and shared gains
H. Self-defined by doing and owning *possessions and exploitation *focus on outcomes		H. Self-defined by being and becoming *sharing and regeneration *focus on processes and relationships
I. Identity by Position/wealth/conformity		I. Identity by relationship/unique contribution/diversity
J. Rational, objective, linear thinking *one truth or answer *one or limited sources of truth and answers *deny and exclude differences		J. Intuitive, subjective, divergent thinking *multiple truths and perspectives *each person has a part of the truth or best answer *accept and affirm differences

V. Implications for Educating, Training and Selecting Managers

If an organization desires to move in the direction of humanistic management values and practices, what are the implications for educating, training and hiring quality personnel? There are a number of key skills and competencies as well as personal qualities essential to being able to function as a humanistic manager.

A. Skills and Competencies of the Humanistic Manager

1. The ability to acquire and effectively use large amounts of new information.

The information explosion makes lifelong learning and the ability to know how to learn quickly a necessity for the 21st century. Effective managers will be skillful at distilling out key ideas from the continuous flow of new and complex information. They will be able to integrate dissimilar and sometimes contradictory points of view -- to allow for pluralism, difference and divergent perspectives and yet coherently act in the face of this ambiguity as one way of focusing, refining and testing possibilities.

2. A complete repertoire of effective interpersonal communication skills.

Effective managers will be skilled listeners, speakers and writers. They will be able to integrate these basic communication skills in implementing collaborative problem-solving, consensus decision-making and positive conflict-resolution processes. These skills will be utilized in a manner that enhances a team effort of people working together rather than only individually, or worse, against each other. Listening becomes the foundation skill that enables each person to be genuinely heard and their contribution affirmed. The simple test of effective utilization of these skills is: Did the communication processes lead to greater or lesser understanding?

3. Personal and interpersonal use of positive motivational strategies.

The emphasis here is on fostering intrinsic motivation or motivation from within. The goal is not to tell others what to do but to awaken their awareness and desire to discover what to do and the best way to do it. Responsibilities are delegated and employees are continually encouraged and provided opportunities for personal and professional growth (i.e., gaining new skills and abilities) leading to greater responsibility. Any problem or situation is viewed from the perspective of the opportunities, challenges, and/or learnings it provides. There is an atmosphere of reaching out and moving towards ever-new possibilities rather than avoiding or moving away from negative or learned outcomes.

4. Personal and professional experiences positively dealing with change.

In all living systems change is inevitable. Making positive use or capitalizing on change requires flexible, creative and dynamic perceiving, thinking and acting approaches. All situations are seen in the context of ongoing processes that are continually open to influence and change. There is some room to "wiggle" in any situation and failures or mistakes ("mis-takes") are viewed as important learnings on the road to success. Each setback is viewed as a new opportunity with added valuable information for the next attempt. In proactively dealing with change the goal is not reactive problem-solving, (although that will often be necessary), but rather the goal is problem-finding -- recognizing problems needing solution before they become problematic, anticipating new directions and opportunities. There is a shift in focus from only reacting to the situation at hand to anticipating and creating new situations -- from focusing only on how to do what we are presently doing right to how to find the right things to do. These kinds of processes promote capitalizing even on unpredictable change, such that change becomes a positive challenge and opportunity rather than a force to be resisted at all cost.

5. Strong background in liberal arts disciplines.

The skills and competencies briefly outlined above as well as the personal qualities outlined below are very complex and not simply and easily acquired. I believe the liberal arts disciplines provide the best depth of background our formal educational system has to offer in teaching these skills, competencies, and personal qualities. Models and approaches to understanding human nature and the "wonder of being human"; rigourous training in thinking critically, clearly, and systematically from multiple and opposing perspectives; effectively communicating with diverse persons and points of view; being able to identify and articulate the unifying threads within increasing diversity; thinking holistically about system relationships and processes; and being continually aware of the narrow limits, assumptions and perspectives of one's own point of view are all processes inherent in a quality liberal arts education. Cross-cultural educational and life experiences are an additional powerful way to promote these learnings.

B. Personal Qualities of the Humanistic Manager

1. Mature, self-confident and self-aware.

Mature individuals demonstrate independence, responsibility and accomplishment in multiple areas. They will have sought out varied life experiences and feel positive about themselves and their backgrounds, while actively engaging in a process of continual learning. They

ARE NOT EXCEPTIONAL DUE TO GREATER INNATE POTENTIAL THAN OTHERS BUT, RATHER, THROUGH MORE COMPLETE UTILIZATION OF THEIR POTENTIALS. A SENSE OF INDEPENDENCE, SELF-CONFIDENCE AND UNLIMITED BELIEF IN THEMSELVES AND THEIR PERSONAL POTENTIAL FACILITATES AN ATTITUDE OF FAITH AND TRUST IN OTHERS' POTENTIALS AS THE FOUNDATION FOR INTERDEPENDENT EFFORT. LEVEL OF SELF-ACCEPTANCE IS DIRECTLY RELATED TO LEVEL OF ACCEPTANCE OF OTHERS. THESE SELF-ATTITUDES ARE HELD IN A HUMBLE SPIRIT OF SELF-AWARENESS ABOUT ONE'S OWN "GROWTH AREAS" AS WELL AS ONE'S STRENGTHS. THE MORE AUTHENTICALLY THE PERSON IS SELF-AWARE AND SELF-ACCEPTING, THE GREATER THEIR ABILITY TO HONESTLY CONNECT WITH OTHERS. THEY WILL NOT NEED OTHERS TO BE A CERTAIN WAY FOR THEM SO THAT THEY CAN FEEL O.K. THEY WILL BE LESS INCLINED TO TAKE OTHERS' ACTIONS, BELIEFS, AND PERCEPTIONS PERSONALLY EVEN WHEN DIRECTED AT THEM, AND, INSTEAD, REALIZE THAT THE OTHER'S BEHAVIOR IS PRIMARILY A STATEMENT ABOUT THEM. THIS PERSPECTIVE ENABLES THE REALIZATION THAT THE OTHER PERSON'S BEHAVIOR DOES NOT NEED TO DETERMINE THEIR RESPONSE.

2. COMMITTMENT TO THE DEVELOPMENT OF THE FULL HUMAN POTENTIAL OF SELF AND OTHERS.

THE HUMANISTIC MANAGER REALIZES SUPERIOR WORK COMES FROM SUPERIOR WORKERS WHO ARE SUPERIOR PEOPLE. THE EMPLOYEE/WORKER IS CLEARLY VIEWED AS THE ORGANIZATION'S GREATEST RESOURCE. THE CONTINUAL QUEST IS FOR AVENUES TO ENCOURAGE AND SUPPORT THE ONGOING PROFESSIONAL AND PERSONAL DEVELOPMENT OF EACH EMPLOYEE. PERSONAL DEVELOPMENT IS AS IMPORTANT AS PROFESSIONAL DEVELOPMENT FOR WHEN EMPLOYEES' PERSONAL LIVES ARE SATISFYING AND WORKING WELL, THEIR PROFESSIONAL EFFORT BEGINS TO REACH ITS FULL POTENTIAL. THIS IS NOT JUST A PROCESS OF TEACHING NEW IDEAS OR CONTENT BUT, RATHER, NEW SKILLS AND LIFE-COPING AND ENHANCING PROCESSES THAT CAN CREATE NEW WAYS OF PERSONAL AND RELATIONAL BEING. FOR EXAMPLE, THERE MAY BE NO MORE POWERFUL PRODUCTIVITY INTERVENTION THAN TO HAVE A KEY EMPLOYEE WHOSE MARRIAGE HAS BECOME PAINFULLY DYSFUNCTIONAL LEARN HOW TO CREATE A MUTUALLY-SATISFYING, LOVING, AND GROWTH-PROMOTING RELATIONSHIP WITH HIS/HER SPOUSE.

TO PROMOTE THE MAXIMUM DEVELOPMENT OF EMPLOYEES, THE GOAL OF DELEGATING IS NOT TO CONTROL BUT RATHER TO EMPOWER WORKERS IN WAYS THAT CONTINUALLY STRETCH THEIR ABILITIES AND SKILLS. EDUCATED "RISK-TAKING" IS ENCOURAGED AND "PERFECT FAILURES" ARE SUPPORTED AND EVEN REWARDED.

3. AWARENESS OF PERSONAL IGNORANCE AND VIEWING THAT AS A RESOURCE.

REALIZING ONE NEVER HAS THE FINAL ANSWER, TRUTH OR BEST SOLUTION ALLOWS FOR OPENNESS IN CONSTANTLY SEARCHING FOR NEW, BETTER AND MORE EFFECTIVE ALTERNATIVES, ANSWERS AND SOLUTIONS. TO BE EFFECTIVE IN THIS PROCESS, YOU MUST BE WILLING TO LET EACH EMPLOYEE BE YOUR TEACHER AS YOU LISTEN, HEAR AND LET THEM KNOW YOU HEARD THEIR PART OF THE "TRUTH". THIS REQUIRES WORKING AT UNDERSTANDING UNTIL THEIR PERSPECTIVE MAKES PERFECT SENSE TO YOU. NOT THAT YOU AGREE -- BUT THAT YOU FULLY UNDERSTAND. IN APPRECIATING OTHERS' CONTRIBUTIONS IN THIS WAY, WE REALIZE OUR OWN LIMITATIONS AND POTENTIALS FOR GROWTH. EACH PART OF THE SYSTEM HELPS THE OTHER PARTS AND THE SYSTEM AS A WHOLE TOWARD POSITIVE FUNCTIONING AND DEVELOPMENT. THE MOST ROBUST AND EFFECTIVE SOLUTIONS GROW OUT OF THE INTEGRATION OF THE GREATEST DIVERSITY.

4. PERSONAL INTEGRITY, VALUES, & ETHICS

THERE ARE CERTAINLY AMPLE CONTEMPORARY EXAMPLES OF AN ETHICAL CRISIS IN MANAGEMENT AND LEADERSHIP IN THE UNITED STATES IN BUSINESS, POLITICS, HUMAN SERVICES AND EVEN THE CHURCH. PEOPLE WHO DEFINE THEMSELVES PRIMARILY BY WHAT THEY DO AND WHAT THEY OWN RATHER THAN WHO AND WHAT THEY ARE TEND TO BE EXTREMELY VULNERABLE TO PERSONAL SELF-INTEREST AND GREED AT ALMOST ANY PRICE. PEOPLE WITH A STRONG SENSE OF SELF, PERSONAL PURPOSE AND MEANING, RESPONSIBILITY TO IMMEDIATE OTHERS AND THE WIDER COMMUNITY, AND AN INTERNAL VALUING PROCESS WILL CONSISTENTLY DEMONSTRATE CONCERN FOR THE SHORT AND LONG-TERM CONSEQUENCES OF THEIR ACTIONS IN THE CONTEXT OF THE EFFECTS ON ALL CONCERNED PARTIES.

THEIR GOAL IS TO FIND THE ELEGANT SOLUTION WHERE EVERYONE'S NEEDS ARE AFFIRMED, WHERE EVERYONE WINS. THE SURVIVAL OF THE HUMAN SPECIES AND THE PLANET CLEARLY DEPENDS ON THEIR MODELING AND THEIR LEADERSHIP.

THIS BRIEF AND GENERAL LIST OF KEY SKILLS, COMPETENCIES AND PERSONAL QUALITIES OF THE HUMANISTIC MANAGER IS ASKING A LOT OF OUR MANAGERS. YET, FOR YEARS IN THE UNITED STATES, TOP-LEVEL MANAGERS IN ALL FIELDS HAVE BEEN TAKING A LOT IN STATUS, POWER AND FINANCIAL REWARD RELATIVE TO THE WORKERS WHO MAKE THEM SUCCESSFUL. IT HAS OFTEN BEEN SAID, "TO THOSE OF US TO WHOM MUCH HAS BEEN GIVEN, MUCH IS ALSO REQUIRED.". I THINK WORKERS HAVE A RIGHT AND RESPONSIBILITY TO HOLD MANAGERS ACCOUNTABLE IN THESE WAYS -- TO INSIST THEIR MANAGERS LEARN HOW TO MANAGE HUMANISTICALLY. THIS IS A MUTUAL INTERACTIVE PROCESS INVOLVING ALL PARTS OF THE SYSTEM. WE CAN ONLY MOVE FORWARD TOGETHER.

REFERENCES

BATTISTA, J.R. (1977). THE HOLISTIC PARADIGM AND GENERAL SYSTEMS THEORY. IN L. VON BERTALANFFY & A. RAPOPORT (EDS.), GENERAL SYSTEMS YEARBOOK: VOL. 22. ANN ARBOR, MICHIGAN: BRAUN-BRUNFIELD.

CARROL, N. (1988). CULTIVATING THE HEART OF THE FACILITATOR. FELLOWSHIP, APRIL-MAY, 5-6.

FERGUSON, M. (1980). THE ACQUARIAN CONSPIRACY: PERSONAL AND SOCIAL TRANSFORMATION IN THE 1980S. LOS ANGELES: J. P. THARCHER, INC.

JAFFE, D.T. & SCOTT, C.D. (1989). BRIDGING YOUR WORKERS' "MOTIVATIONAL GAP". NATION'S BUSINESS, MARCH, 28-32.

KLEINMAN, D. (1987). RECRUITMENT: WHAT TO LOOK FOR IN TOMORROW'S EMPLOYEE. PERSONNEL JOURNAL, OCTOBER, 102-107.

KUHN, THOMAS (1974). THE STRUCTURE OF SCIENTIFIC REVOLUTIONS. CHICAGO: UNIVERSITY OF CHICAGO PRESS.

MENTKOWSKI, M. (1988). PATHS TO INTEGRITY: EDUCATING FOR PERSONAL GROWTH AND PROFESSIONAL PERFORMANCE. IN S. SRIVASTVA & ASSOCIATES, EXECUTIVE INTEGRITY: THE SEARCH FOR HIGH HUMAN VALUES IN ORGANIZATIONAL LIFE. SAN FRANCISCO: JOSSEY-BASS.

PETERS, T.J. & WATERMAN, R.H. (1982). IN SEARCH OF EXCELLENCE. NEW YORK: WARNER BOOKS.

REHDER, R.R. & SMITH, M.M. (1986). KAIZAN AND THE ART OF LABOR RELATIONS. PERSONNEL JOURNAL, DECEMBER, 84-93.

SANDLER, L. (1988). COMMUNICATION: RULES FOR MANAGEMENT COMMUNICATION. PERSONNEL JOURNAL, SEPTEMBER, 40-42.

SMITH, B. & KLEINER, B. (1988). WHY EXECUTIVES NEED A LIBERAL ARTS EDUCATION. PERSONNEL JOURNAL, NOVEMBER, 36-40.

TAGESON, C.W. (1982). HUMANISTIC PSYCHOLOGY: A SYNTHESIS. HOMEWOOD, ILLINOIS: DORSEY PRESS.

TRAVIS, J.W. (1988). OPTIMAL WELLNESS ENVIRONMENTS. MILL VALLEY, CALIFORNIA: WELLNESS ASSOCIATES.

VON BERTALANFFY, L. (1956). GENERAL SYSTEMS THEORY. IN L. VON BERTALANFFY & A. RAPPOPORT (EDS.), GENERAL SYSTEMS YEARBOOK: VOL. 1. ANN ARBOR, MICHIGAN: BRAUN-BRUNFIELD.

VON BERTALANFFY, L. (1966). GENERAL SYSTEMS THEORY AND PSYCHIATRY. IN S. ARIETI (ED.), AMERICAN HANDBOOK OF PSYCHIATRY: VOL. 3. NEW YORK: BASIC BOOKS.

WATZLAWICK, P. (1976). HOW REAL IS REAL? NEW YORK: RANDOM HOUSE.

WRIGHT, W. L. (1987). EXCAPE FROM MEDIOCRITY. PERSONNEL ADMINISTRATOR, SEPTEMBER, 109-117.

IMMIGRANTS - CAN THEY PROVIDE THE FUTURE LABOR FORCE?

BRENDA DICKEN
AND
ROBERT BLOMBERG

Abstract

Many public and private sector labor economists are forecasting labor shortages for business and industry which stretch through the year 2000. This article briefly examines the demographics which underlie these "shortage" predictions and suggests that proactive business leaders might wisely focus planning efforts on legislative reform in areas of immigrant labor. Conclusions drawn suggest that the high quality human capital which immigrants can provide supplies one leverageable human resource pool during times of labor shortage. However, current immigration policies and practices can prove an impediment to the attraction and retention of high quality immigrant labor.

Introduction

Between now and the year 2000, immigrants will represent the largest share of increase in the U.S. population and work force since World War I (Johnston and Packer, 1987). Therefore, a closer look at the impact of immigrants and immigration policy on the work force provides insight into one solution to an impending domestic labor shortage.

Labor Supply

America is rapidly becoming a service economy. Service delivery has always been labor intensive and, therefore, vulnerable to fluctuations in labor supply. An aging population, defined and credentially restricted professional boundaries, and accelerating rates of technological change have all worked to restrict job entry and occupational mobility. A new and inescapable reality is emerging which is likely to amplify "spot" labor shortages of the past into system-wide problems. That reality is found in the work "demographics" and the two major demographic factors that determine labor force growth: changes in population and changes in labor force participation rates.

Changes in Population

The domestic population and work force is growing more slowly than at any time since the 1930s, effecting a net reduction in total labor supply (Johnston and Packer, 1987). Only 21 million people will be added to the labor force in the 14 years between 1986 and 2000 as compared to 31 million added in the previous 14-year span (Fullerton, 1987). At the same time, the domestic population and work force is aging. The baby boom generation (all those born between 1946 and 1964), which has provided American business and industry with a steady 30-year supply of quality labor, is maturing. Following this baby boom comes an unavoidable trough in the labor supply curve - a "baby bust" promising labor scarcity and sometimes severe shortages. As baby boomers move from the ages of labor force entry into the prime employment ages of 35 to 64, the baby bust generation of 1965 to 1976 will drop the number of 16 to 24 year-olds entering the labor force by 10 percent (Bernstein, 1987). At the same time, the moderate growth in GNP predicted by the Bureau of Labor Statistics (Fullerton, 1985) will increase the numbers of jobs available by 10 percent. This will, in turn, increase the percentage of prime working-age civilians in the labor force from 63.8 percent in 1980 to 73 percent by 2000 (Fullerton, 1987). Simply translated, these projections forecast fewer people available for more jobs.

Changes in Participation Rates

Compounding labor supply problems are changes in labor force participation rates. The labor force aged 55 and over declined from 39 percent of the total in 1970 to 30 percent in 1984, and this decline is predicted to continue to 25 percent by 1995 (Fullerton, 1987). White males, who dominated the U.S. labor force prior to 1985, will only comprise 15 percent of new labor force entrants from 1985 to 2000. The remaining 85 percent of new workers will be comprised of: U.S.-born white females 42 percent; immigrants, 23 percent; and minorities, 20 percent. This represents a dramatic change for immigrants whose participation rate will grow from 7 percent to 23 percent from 1985 to 2000 (Nussbaum, 1988).

Labor Demand

Skills Paradox

Two basic trends seem evident based upon predictions for the future job market. The first, as has been mentioned, is an economic shift away from manufacturing and goods production into more labor-intensive human and professional services. The second trend is a marked shift toward higher level technical skill and educational requirements with the fastest growth at the highest levels of educational attainment.

According to the Hudson Institute, more than half of all new jobs created from 1984 to 2000 will require education beyond high school and almost one-third of those jobs will go to college graduates. While a significant share of expanding service occupations falls in the low- to mid-skill level range, (e.g., fast food preparation), a far greater proportion occurs in high-skill areas including computer technology, education, health care, and finance. Careers in all of these areas command relatively high wages, the use of advanced technology, and higher basic worker competency levels in reading, writing, and math.

Dual problems are created. Labor is in short supply, and an increasing gap is created between the skills workers have and the skills employers need. Annually, half a million high school dropouts enter the labor market along with 700,000 graduates who possess only minimal literacy skills (Bernstein, 1987). The number of college-age Americans is declining at the same time that industry is demanding better educated workers. Nursing, for example, is currently experiencing a 13.6 percent shortage in labor supply (Nurses, 1987), and similar shortages exist or soon will exist in computer technology, teaching, paralegal professions, and other specialized areas (Cetron and Appel, 1984; Manpower Argus, June 1989). And, although the overall U.S. employment rate fluctuates around 6 percent, the rate is 2.4 percent for managers and 2.6 percent for administrators (Bernstein, 1987). Simply summarized, work and demographic pattern shifts indicate fewer, less qualified employees will be available for larger numbers of more knowledge-intensive jobs.

Labor Shortage Remedies

Four common remedies are generally offered during periods of labor shortage: (1) use of technology as a substitute for labor (e.g., computerization); (2) expanding the labor supply through immigration; (3) encouraging older workers to stay in the work force longer; and (4) increasing competitive efforts to attract nontraditional workers into the labor force. While all of these remedies provide some relief for labor shortage, only one provides it in large members and relatively quickly. That one is immigration.

The Immigrant Profile

If immigrants, by their sheer numbers, are making an impact on the work force, their presence invites several questions including: What is an immigrant? How may immigrants are there? Where do they come from and where do they settle? How do they affect local economies? What skills and education do they have? How well do they assimilate?

What is an Immigrant?

According to the Immigration and Naturalization Service, immigrants are nonresident aliens (i.e., non-U.S. citizens) admitted to the U.S. for permanent residence. This category includes persons who may have entered the U.S. as nonimmigrants or refugees but who have subsequently changed their status to that of a permanent resident (U.S. Bureau of the Census, 1987). Although refugees are considered nonimmigrants upon admission to the U.S., they become eligible for immigrant status after one year of residence. Immigrants can be divided into two basic categories: those whose immigration is subject to numerical limitations (allocated on a basis of six preference categories) and those exempt from numerical limitations including refugees, immediate relatives, and "special status" immigrants.

Immigrant Numbers

An estimated 600,000 immigrants are arriving yearly in the U.S.; an annual rate that is predicted to continue until the end of the century. From 1970 to 1980, the number of entering immigrants was more than a third greater than in the previous decade, increasing the U.S. population by about 4.5 million people (Johnston and Packer, 1987). While proportionally smaller than the numbers of immigrants who entered at the turn of the last century, current immigrants represent about one-third of U.S. annual population growth impacting on both the country's labor force and on its demographic profile (Holden, 1988).

Immigrant Origins

The origins of the U.S. immigrant population have changed dramatically in the past 20 years. Prior to 1960, 79 percent of the foreign-born came from Europe and Canada. Since 1970, 78 percent have come from Asia and Latin America (Johnston and Packer, 1987). According to Dr. Leon Bouvier, retired Population Reference Bureau Vice President, Hispanic Americans will shortly comprise between 17 and 20 percent of the U.S. population. The impact of this unprecedented influx (Asians and Hispanics) has been dramatic, in part, because these minorities have historically experienced disproportionately high birth rates. Asians, for example, with a birth rate 14 times greater than Anglo-Americans, are the fastest growing ethnic group in America.

Settlement Patterns

Arriving immigrants continue to settle in the same areas of the country with more than half of all foreign-born residents electing to live in California, Texas, and New York (Hudson, 1987). California, and Los Angeles in particular, attracts an unusually large share of both legal and illegal immigrants. Statistics from the 1980 census indicated that over 22 percent of Los Angeles County's population is foreign-born with Asians comprising 20 percent and Mexicans comprising 42 percent of the immigrant population (Goodis and Espenshade, 1986). The impact of immigrants settling in Florida has been magnified by the heavy concentration of Cubans in the Miami area where they have created their own subculture - carrying the colloquial title "little Havana."

Economic Impact

There is a common public stereotype that immigrants adversely affect local economies by contributing to unemployment, lowering base wages, and increasing public expenditures on welfare programs. The California experience is proving quite the opposite. The economy of the Los Angeles area, for example, is flourishing. From 1978 to 1983, 35,000 new small companies were created and Los Angeles county now contains some 7,000 Korean-owned businesses. Similarly, the Mexican-American Grocers Association has grown in the last four years from 260 to 860 members (Hartman, 1986). In addition, an Urban Institute study has found that California's unemployment rate fall from above the national rate in the 1970s to below the national rate in the 1980s even though arriving immigrants during

that time period took one out of three southern California jobs (McConnell, 1988). A study on the economic consequences of immigration (1987) by Borjas and Tienda has concluded in part that the negative impact of immigrants on the earning of native workers is quite small and that as a nation we have not yet exceeded the absorptive capacity of the U.S. labor force. This viewpoint is shared by Demetrios Papademetriou, director of immigration policy and research for the U.S. Labor Department, immigrants "invite more investment, create their own businesses, and act as consumers and taxpayers" (Labich, 1989).

Immigrant Skills and Education

There exists some evidence to suggest that interests and abilities as illustrated by educational attainment, language skill, and perhaps vocational motivation are higher for initial immigrant waves than for successive waves. First immigrant waves, it is argued, are often comprised of a disproportionately high percentage of skilled and motivated workers. Subsequent immigrant waves often prove more average both in skill and attitude mix, prompted to immigrate for purposes of family reunification rather than job opportunity (McConnell, 1988; Borjas and Tienda, 1987). Literature reviewed by these authors suggests this wave/quality theory to be situational and group specific rather than generalizable. Some immigrant groups tend to follow the pattern, others do not. A comparison of Asian and Hispanic immigrants illustrates this point.

In general, first-wave Asian immigrants have been well educated, have a high degree of English competency, work in professional or technical fields and exhibit a high savings rate with disposable income (Knowles, 1987). In 1980, 73 percent of Asian immigrants had completed high school and almost half of Indian adults had college degrees plus some graduate school (Holden, 1988). Since that initial entry wave of talented ambitious, entrepreneurial immigrants, however, has come an influx of immigrant relatives whose entry may have been largely motivated by an interest in maintaining family unity rather than pursuit of vocational opportunity. It is interesting to note that the average educational level of Asian immigrants has now dropped by about two years over what it was in 1970 (McConnell, 1988).

Different from the Asian profile, first-wave Hispanics as an immigrant group averaged only an 8th-grade education, had a limited command of English, and took primarily low-skilled jobs. According to the most recent government study, however, Hispanics have experienced a significant rise in educational level and a concomitant rise in the number of Hispanic workers in managerial and professional jobs. Census Bureau figures from 1984 through 1988 show a 34 percent increase in the number of Hispanics completing high school and a 51 percent increase in the number of Hispanics with four or more years of college (Schwartz, 1989).

In addition to immigrant motivation, cultural imperatives have a strong impact on assimilation into a capitalistic American culture. Americans pride themselves on being entrepreneurial, hardworking, and driven toward economic success. This value set is not necessarily shared nor admired by other cultures.

Many examples can be cited. A recent and relevant one is provided by Hmong (Laotians) as compared to Vietnamese immigrants. Hmongs were slash and burn nomadic farmers who had no written language until the 1950s. A very gentle (and particularly traumatized people by warfare), the Hmongs have had difficulty assimilating in America. They have often been preyed upon and victimized by urban neighbors, as violence and the competitiveness of American society is contrary to traditional Hmong culture. Vietnamese, by comparison, have in general, assimilated with comparative ease. The Vietnamese culture seems to have prepared many immigrants for a capitalistic American society and many have melted well educationally, economically, and socially.

To this point it should be clear that: (1) a labor shortage is imminent for the U.S. which will extend to the year 2000, (2) immigration offers a primary labor source, (3) immigrant labor, in general, continues to have a positive social and economic impact on the American way of life, and (4) immigrants vary in job skills and culture. Given this foundation, it is appropriate to next explore the implications of using immigration policy as a means to attract and select, in a macroeconomic sense, the types of immigrant labor most needed.

Immigration Policy

Policy Background

Since current U.S. immigration policy affects the immigrant mix which, in turn, affects the labor supply, a closer look at that policy and at recent proposals for change is in order. As previously stated, immigrants entering the U.S. can be divided into two general categories: those subject to numerical limitations and those exempt from numerical limitations. Exempted immigrants include immediate relatives of U.S. citizens, comprising 65 percent of the 1986 quota; refugees, 32 percent of the quota; and special immigrants of various types, less than 1 percent. Refugees are not considered as numerically limited, presumably because the Refugee Act of 1980 "provides for a uniform admission procedure for refugees of all countries" (U.S. Bureau of the Census, 1987). However, refugee admission ceilings are set annually by the President in consultation with Congress. Since 1980, immigrants who are subject to numerical limitations have been divided among six preference categories. Four of those preferences apply to relatives of U.S. citizens or resident aliens (80 percent in 1986) and the other two preferences apply to occupations (20 percent). Translating these regulations into actual numbers of immigrants admitted, evidences the following for 1986:

total immigrants	601,708
relatives	429,760
refugees	104,383
occupational preferences	53,625
professionals	11,763*
other workers	11,399*
spouses and children	30,463

*601,708 ÷ (11,763 + 11,399) = 4%

With close to 80 percent of all immigrants entering the U.S. for the purpose of family reunification and only 4 percent* entering for occupational reasons, Congress is taking a closer look at reforming current immigration policy to change those percentages. The present policy appears so weighted toward admission of family members that job-skilled foreigners who could ease American labor shortages - but who have no relatives here - are unable to enter the country or do so illegally. An estimated 100,000 young Irish, for example, have entered the U.S. illegally since 1982 seeking jobs that Ireland's depressed economy and 20 percent unemployment cannot provide. Because their illegal status often keeps them in jobs for which they are overqualified, many are now openly lobbying Congress for policy changes through the Irish Immigration Reform Movement (IIRM) (Tumulty, 1989). Recent legislative trends suggest IIRM lobbying efforts have been effective. In October 1988, HR 5115 was passed by the U.S. House and Senate making 10,000 additional visas available in 1989, 1990, and 1991 to Irish persons and others from countries which have been unable to take advantage of the existing visa preference system (Cohodas, 1988).

Proposed Legislation

Of two immigration reform bills introduced in Congress in 1988, the Senate bill passed with relative ease but the House bill never reached the floor, leaving the issue unresolved but likely to resurface again in 1989. The Kennedy-Simpson bill, passed by the Senate on March 15, 1988, was designed to create greater flexibility in the admission of immigrants with needed skills and to stimulate a regrowth in immigration from Western Europe. The Senate bill makes the following changes:

(a) imposes an overall annual ceiling of 590,000 visas, including immediate relatives who were previously exempt from numerical limitations;
(b) allots 470,000 of the total visas to relatives of citizens and permanent residents; 220,000 for immediate relatives, and 250,000 to be divided among four preference categories (e.g., brothers and sisters);
(c) creates a new 120,000 - visa "independent" category consisting of 5 elements:
(1) exceptional abilities including professionals with advanced degrees - 27,600 visas;
(2) special work skills currently in demand in the U.S. - 27,600 visas;
(3) investors willing to invest $1 million in a business and create 10 new jobs - 5,000 visas
(4) special category immigrants - 6,000 visas
(5) point system entry based on age, education, and job skills in an area currently in demand in the U.S. - 55,000 visas

A significant aspect of the Senate bill is the provision for periodic Congressional review of immigration levels (Cohodas, 1988).

A second similar bill was introduced in the house by Representative Charles Schumer (D-New York). The House bill had little chance of passing because those members in charge of immigration legislation are waiting to see the effects of the 1986 amnesty law for illegal aliens before changing the legal immigration system (Cohodas, 1988).

Skills-based immigration versus family reunification is an issue that will not easily be resolved. Lobby groups actively support both sides of the issue. Any new immigration policy may likely result in a compromise, allowing for some increase in skills-based immigration without drastically reducing family entrants. Priority ratios - family reunification to skills-based immigrant selection - must optimally balance both changing human and business/economic interests.

Conclusions

Analysis of figures from the Bureau of Labor Statistics and other government studies indicate a labor shortage, especially of skilled workers and professionals, continuing from the present to the year 2000 and beyond. How much of the country will experience this shortage and to what intensity is difficult to predict. At the same time, immigrants are entering this country in the largest numbers since the turn of the last century. Immigrant influence on the future labor force will depend on several factors: (a) motivation for emigration, (b) motivation for immigration, (c) area of settlement, (d) ease of assimilation, (e) education and job skill levels, and (f) the direction taken by federal immigration policy.

Recommendations

In order to adapt immigrant labor supply to domestic labor needs, the following actions are suggested:

1. Increase research efforts to produce more accurate predictive systems for labor supply and demand.
2. Increase research efforts for tracking immigrant occupation and assimilation patterns.
3. Create a more flexible and responsive immigration policy that will match entering immigrants to current labor market conditions.
4. Increase cooperation among business, public education, and community services to provide more appropriate education and training for both domestic and foreign workers.
5. Explore the formation of an international commission to monitor immigration on a broad basis to meet the needs of both host countries and potential emigres. Linked to this must be the development of policies which strike an appropriate moral balance between the immigrants pursuit of opportunity through migration and a homeland's need for high-quality domestic labor.

It has been said that demographics is our destiny. The preceding pages illustrate the need to proactively address an impending domestic labor shortage. Immigrants and immigration reform legislation provide one means to address the economic, social, and political ramifications of this shortage.

References

Bernstein, A., Anderson, R.W., and Zellner, W. (1987, August 10). Help wanted: America faces an era of worker scarcity that may last to the year 2000. Business Week, pp. 48-53.

Borjas, G.J. and Tienda, M. (1987, February 6). The economic consequences of immigration. Science, 235, 645-51.

Cetron, M. and Appel, M. (1984). Jobs of the future, The 500 best jobs - where they'll be and how to get them. New York: McGraw-Hill.

Cohodas, N. (1988, October 22). Scaled back immigration bill cleared. Congressional Quarterly 53, 3039.

Cohodas, N. (1988, March 19). Senate passes immigration bill but House unlikely to go along. Congressional Quarterly, 46, 711-713.

Fullerton, H.N. (1985, November). The 1995 labor force: BLS' latest projections. Monthly Labor Review, 19-29.

Goodis, T.A. and Espenshade, T.J. (1986). Los Angeles rides the wave. American Demographics, 45-49.

Hartman C. (1986). The new Ellis Islands. INC.

Holden, C. (1988). Debate warming up on legal migration policy. Science, 241, 288-290.

Insight on the News. Vol. 5, number 3, January 16, 1989, Washington, D.C. by Times Corporation. "The New Wave . . ." pp. 8-18.

Johnston, W.B. and Packer, A.E. (Directors). (1987). Work Force 2000. Indianapolis, In: Hudson Institute. (U.S. Government Printing Office).

Knowles, B. (1987, June 22). Foreign influx: an opportunity for industry. National Underwriter, 4, 56.

Labich, K. (1989, July 17). Let's let Asians in. Fortune, 120, 89-90.

McConnell, S., (1988, May 9). The new battle over immigration. Fortune, 117 89-91+.

Nurses: few and fatigued. (1987, June 29). Newsweek, pp. 59, 61.

Nussbaum, B. (1988, September 19). Needed: human capital. Business Week, pp. 100-103.

Schwartz, J. (1989). Rising status. American Demographics, 11, (1), 10.

Tumulty, K. (1989, February 5). Illegal Irish risk new U.S. laws to flee wrecked economy. Star Tribune, pp. 19A, 21A.

U.S. Bureau of the Census. (1987). Statistical Abstract of the United States: 1988 (108th Edition). Washington, DC: U.S. Department of Commerce.

U.S. Firms are having trouble recruiting qualified workers. (1989, June). Manpower Argus, 249, 3.

Implementation Strategies for Employer-Supported Child Care Programs

Alfred James, Ph.D.

Abstract

In recent years, increasing numbers of employers have responded to the child care needs of employees. A small but growing number are responding by establishing on-site or near-site child care centers. This article describes the process used by one employer to establish a child care center for employees. The steps involved to implement an employer-supported child care center are described--from initial consideration to the formal opening--as well as areas of particular concern to both employers and employees.

Increasing numbers of companies are considering how to respond to the child care needs of their employees. This new involvement has occured primarily because of the changing demographics of the American workforce. By 1990, for example, 66 percent of all new entrants into the labor force will be women. Additionally, 70 percent of all women in the workforce are of childbearing age, and 80 percent of them are expected to become pregnant during their work careers (Galinsky, 1986). American families are increasingly pressured by the national shortage of available, affordable and quality day care services for their children. Employer-supported child care provides benefits for both employers and employees (Mies and Stolar, 1986).

This article will describe suggested strategies for planning, establishing and promoting an employer-supported child care center that is located either at the place of business (on-site) or near the workplace (near-site). The strategies are based on my experience as member of a planning committee for such a center, as well as the shared experience of planning committee members and staff of the Menninger Child Care Center in Topeka, Kansas.

Building a Case for Employer-Supported Child Care

No matter what the size of a corporation, the process of planning, establishing and promoting an employer-supported child care center is greatly expedited if there is strong support for the program from at least a few members of top management. If such support is lacking, then generating support will be the first task of a planning committee. Support from management members can be increased by providing them with summaries of national and local statistics in the following areas:

(1) Changing nature of workforce
(2) Emerging family trends
(3) A description of the availability, affordability and general quality of local child care programs

A frequent administrative response to a proposed child care program will be along the order of "the bottom line is cost." Advocates will need to know the goals and missions of the corporation and speak to these when responding to

question of cost. Inclusion of non-cost and cost-saving data from other employer-supported programs will also increase the credibility of the proposal. Regardless of the level of administrative support at this point, advocates should request permission to conduct a needs assessment survey of the company's labor force to obtain more specific information.

Needs Assessment Survey

The Needs Assessment Survey will frequently be the first "official" contact that the advocates will have with most of the other employees. The survey should be brief--no more than one page front and back--and contain an attached tear-off sheet to recruit volunteers to serve on a planning committee to put together a proposal for a child care program. Soliciting volunteers will help the original group of advocates build support for the child care program. It is, of course, preferable that the planning committee be broad-based in its membership with all major divisions of personnel having representation. It is important that the planning committee elect a recording secretary to maintain a written record of the committee's work.

There are numerous examples of needs assessment surveys for child care that can be adapted to meet the data requirements of the planning committee (e.g., Leon, 1989). The survey itself should solicit information about the employee's current child care needs, types of arrangements presently being used, and the amount of fees paid. This sort of data will give the planning committee a more precise understanding of the number and range of child care arrangements currently be used by their co-workers. One of the questions of the survey should ascertain whether or not the employees would use an on-site or near-site employer-supported child care center. False conclusions can be drawn from responses on this part of the survey. To get a clearer determination of respondents' needs and interests, it is important to interview interested employees to determine their current and projected child care needs, as well as their level of committment to the proposed center (Mies and Stach, 1988).

Developing a Philosophy

One of the first tasks that the planning committee should accomplish is the drawing up of a "Statement of Philosophy" for the proposed child care center. Such a statement typically presents the general goals and objectives for the center and its theoretical position--e.g., "developmentally appropriate" or "academic skills" program in regard to children and families. Although the Statement of Philosophy need not be more than one page, it should be carefully and thoughtfully constructed since it will be used for guidance in such matters as personnel standards, purchase of equipment and materials, and relationships between parents and teaching staff.

Analysis of Data

Data obtained from surveys should be carefully interpreted. The reason for selective interviewing, for example, is to increase the validity of the written survey responses. The experience of many planning committees--including that of Menninger Child Care Center--is that parents are reluctant to commit themselves to using a prospective child care arrangement. Although parents may not be pleased with the child care arrangements they currently use, most of them have an investment of time in locating those services. It should be no surprise to anyone that parents are hesitant about pre-enrolling their children in a center they have not inspected.

By keeping these factors in mind, data figures can be more responsibly handled by the committee. Even if the numbers of employees who indicate they would use the new center appear to be extremely low, the experiences of other employer-supported child care programs can be considered. The planning committee for the Menninger Child Care Center found, for example, that employee interest in using the center steadily increased as building plans progressed. The center was filled to capacity in less than a year after its opening.

The most useful information for the committee to gather from the employee surveys is the following:

(1) Numbers and ages of preschool children of surveyed employees;

(2) Days and hours of preferred child care services;

(3) Any desired child care services that are usually difficult to acquire--such as sick child care and school holiday care;

(4) Median cost of current child care services used by employees.

An important additional item generally considered for inclusion in data base at this point is an evaluation of the quality of child care services currently available to the employees. A useful indicator of quality of child care programs is that of accreditation by the National Association for the Education of Young Children (NAEYC). The numbers of these accredited programs

in the community can be indicated.

Preparing a Budget

Start-up Costs

Before acquiring a final "go ahead" for the project, the committee members will need to prepare a general budget which covers line items such as start-up costs, costs of operation, and fees and other sources of financial support for the center. The local state government department for licensing of child care facilities can be contacted to acquire information about licensing standards. Requirements for staff/child ratios, for numbers and ages of children served and the space requirements will need to be factored into the budget projections.

The planned enrollment capacity for the center multiplied by the square footage of space required for licensure for that number of children will offer a general total square footage figure. Estimated costs of building or refurbishing can then be made. Finally, the total start-up cost for the project can be calculated by adding estimated costs of furnishings and supplies to the building costs. Again, the committee can use the services of a state child care licensing representative to assist them with these calculations.

Operating Costs

Because child care programs are "labor intensive," estimating operating costs can be guided by numbers and categories of employees planned for the center. Human resource or personnel representatives on the planning committee can analyze job descriptions and qualifications for equivalent existing categories within the corporation. Local directors of high quality child care programs can also be resources for helping the committee develop a projected budget for operating costs.

It is important to keep in mind that the operating budget is a concrete representation of the Statement of Philosophy. If, for example, the philosophy stresses quality care, then the budget for personnel costs should reflect the center's commitment to the recruitment and retention of highly qualified staff.

Summary of Budget Planning

The following points can serve as a general checklist for the planning committee's projections of budgetary requirements:

(1) Start-Up Costs (e.g., building acquisition and furnishings) will need to be paid by the employer;

(2) Operating Costs can be only partially supported by parents' fees, especially during the first year of operation. The remaining costs will also need to be paid by the employer;

(A) Costs of Operation should include projected savings to the corporation in employee salaries for reduced tardiness and leave time due to unstable or inconvenient child care arrangements;

(3) Projected income from fees or tuition should be derived from a formula which considers both the structure of fees of local quality programs for children and levels of fees that employees have indicated as desirable. This derived fee structure should also permit a sliding scale based on family income. With the budgetary planning completed, the committee members can now plan how they will assemble their proposal to approach members of top management.

Presenting the Proposal

The proposal presented to the appropriate decision-makers should contain the following parts:

(1) A general summary of data from employee survey to document child care need and interest, as well as specific examples of employee descriptions of child care difficulties;

(2) A summary of local resources for child care, including availability, cost, and levels of quality;

(3) A description of demographic changes that will effect labor pools in the near future;

(4) The "Statement of Philosophy" for the proposed child care facility;

(5) Projected budget that includes start-up costs, operating costs and income sources.

The proposal should not be presented to the key decision-makers of the organization unless the planning committee has in mind a good "Plan B." For example, if the projected budget is considered exhorbitant, an alternate proposal might be one whose budget was based on serving fewer children during the first few years. Another example of an alternate plan might involve leasing a nearby facility rather than building a new center.

If the planning committee members have worked closely with their various department heads, then they will be able to predict some of the probable responses to their proposal. Department heads should be regularly informed of the planning committee's progress in order to build and to maintain support.

Building Support for Approved Programs

After gaining approval for a child care center, what are some of the important steps involved in

implementation? One of the first priorities of the planning committee will be to build support for the venture. Some employees are likely to be opposed to the center. Opposition may be especially high at work places that do not offer a "cafeteria benefits plan" whereby employees select from a variety of benefit offerings.

Reducing opposition will be more easily accomplished by regularly communicating to employees the progress of the center's development. The committee can use existing communication outlets such as company newsletters and bulletin boards as vehicles for distributing news about the stages of creating the center. In a work place with more than 100 employees, regular meetings with departments or divisions can be more workable. A slide/sound show that describes the child care center's philosophy, location, and planned services will also be helpful in building support.

Hiring Staff

The first staff person to be hired should be a director for the center. Members of the planning committee for the child care center are ideally suited to contribute guidelines for the recruitment and selection of the center's director. The state licensing representative can furnish any required minimum standards for center directors. Local chapters of the National Association for the Education of Young Children (NAEYC) can also provide professional literature on the subject of desirable qualifications. A minimal qualification would be a person's willingness to support and to implement the Statement of Philosophy that the committee developed.

Ideally, the new director will be working at least three months before the center's opening. He or she will have the major responsibility of helping to select staff for the program. The director can also be expected to work closely with the state licensing representatives to ensure compliance with building codes, space requirements and other necessary documentations. Increasing employee support for the center will be more easily accomplished with the director on board. He or she will quickly become identified as the primary spokesperson and advocate for the center's goals.

Planning the Opening

The planning committee, the director and the newly hired teaching and support staff can cooperatively develop a schedule of events to celebrate the opening of the center. As a significant event in the life of any workplace, the opening should be handled as a "big splash." Local television and newspaper coverage can be invited and significant amounts of media coverage should be anticipated. The planning committee will have a center stage role to play for all celebratory activities. All employees should be encouraged to participate in activities associated with the opening.

Maintaining Support

Once there are real children in the center, the tasks of building support will be much simpler. It will be simpler because the children can be incorporated into the workplace by such means as regularly reporting the center's activities in employee newsletters and by encouraging all employees to visit the center. When carefully planned, groups of the children can be brought into work areas. Such visits are especially welcomed as part of company holiday celebrations.

All departments or divisions of the company need to be involved in the ongoing life of the center. Janitorial and maintenance services, accounting and other necessary components of the center can be incorporated into the routine of the company. The staff and parents can work together to develop special activities that involve a cross-section of employees with the children. Based on the experience of other on-site centers, a conscientious effort to create high visibility for the center will result in increased good will from all sectors of the company. An achievable goal is to influence the perception of employees so that most of them will begin to think "our children" rather than "those children at the center."

References

Galinsky, E. (1986). Investing in quality child care: A report for AT&T. Short Hills, N.J.: AT&T.

Leon, K., Ed. (1989). Employer-supported child care: We're minding the children. Topeka, Kansas: The Menninger Foundation.

Mies, S. and Stach, M. (1988). On-site corporate child care: Bridging company/center relations. Child Care Center, 3, 26-27.

Mies, S. and Stolar, M. (1986). On-site industrial child care. Child Care Center, 1, 53-54.

COMPUTER-BASED CAREER GUIDANCE AND OCCUPATIONAL INFORMATION

AMIEL T. SHARON

Abstract

A microcomputer-based career guidance and occupational information system is being developed by the U.S. Office of Personnel Management to assist present Federal employees and job-seekers in their career planning and in accessing information about Federal careers and occupations. The software will make it possible for users to obtain detailed information on some 360 Federal white-collar occupations such as the kinds of jobs that are available, where they are available, and how to apply for them.

Computer-based career guidance and planning in the workplace is a relatively new but growing trend that is benefiting both the work organization and its employees. It assists employees in making effective career transitions, helps job-seekers find satisfying and productive occupations, and aids organizations in redeploying workers in times of change.

The U.S. Office of Personnel Management (OPM), the central personnel agency of the Federal government, is currently developing a computer-based career guidance and occupational information system. The function of this system will be to assist present Federal employees as well as job-seekers to identify Government careers and occupations that best match their work values and preferences, interests and skills. The system being developed by OPM actually consists of two separate subsystems. One is career guidance and the other is occupational information. Discussion here will be limited only to the occupational information subsystem because this software will be ready for distribution shortly.

The Federal Occupational and Career Information System (FOCIS) makes it possible for users to access detailed information, using a PC, on approximately 360 Federal white-collar occupations. These occupations and their specialties account for most of the Federal white-collar jobs. For each occupation the user can obtain description of the work, minimum qualifications, grade levels and salaries, number of people employed, related college majors, employing agencies, and locations and addresses to contact for employment information. Also in the database are descriptions and addresses of approximately 400 Federal organizations. The system does not provide information on job vacancies as these tend to vary from day to day. Employee counts by occupation, location, and organization are good surrogates for vacancy information as they are highly correlated with turnover and retirements of employees who must be replaced. In general, the larger the number of people in an occupation, the better are the job opportunities in it. The timeliness of the occupational data will be insured by the annual updating of the information.

The software is menu driven with no prior experience on a PC needed by a user. Context sensitive help screens enable the user to quickly locate the information desired.

Four general paths or approaches can be taken in conducting a search of the database. Users can begin their search with a college major, an occupation, a geographic region, or a Federal agency. For example, college graduates may want to start their search by choosing a menu by which they can specify their college major. They then can obtain a list of Federal occupations which are appropriate to their majors and continue their exploration using additional selection criteria.

Those users who have a fairly good idea of the kind of job they want can quickly access information on one or more specific Federal occupations. They would first call up the occupational group menu that displays the 22 Federal white-collar occupational groups. By selecting a specific group, the user is able to access the individual occupations within the group and then obtain the following information for each occupation:

Description of the work

The qualification requirements

The starting salaries and average salaries of present employees

The number of employees at all agencies

The number of employees at specific agencies or their subdivisions

The number of employees at specific agencies by specific geographic locations

Job-seekers who are not geographically mobile may want to start their search by specifying a particular region of the country such as a city or a state. This will limit their search to agencies and occupations only in the specified regions.

Some job-seekers may be interested in exploring career opportunities in a specific Government agency, such as the Department of Treasury, or a specific bureau within an agency, such as the Internal Revenue Service. They can obtain a description of the agency and its mission as well as descriptions of its subdivisions and mailing addresses to write for employment information.

One advantage of FOCIS is that the user can obtain as much or as little information as is needed very quickly. Using the on-line instructions and help screens it is possible to obtain answers to some of the following questions in just a few seconds: What is the starting and average salaries of Air Traffic Controllers? What is the function of the Farmer's Home Administration? What are the qualification requirements for a Customs inspector? Which Federal agencies employ accountants in Georgia? Where are they located? Which ones are likely to have the best opportunities? How do I contact them? Which Federal occupations are related to my college major?

In addition to providing the user with answers to specific questions, FOCIS also makes it possible to browse through the occupational database without searching for specific information. When used in this fashion, FOCIS can open new vistas for Federal job applicants by informing them about occupations and agencies of which they were not aware.

System users

FOCIS users are both individuals and organizations. Individual users are present Federal employees who may want to change occupations or geographic locations; college students and members of the general public who may be considering employment with the Government; and Federal personnelists and managers who may require occupational and agency information. The organizational users include Federal agencies and job information centers, Federal and state employment services, college counseling and placement offices, public libraries and professional associations.

System specification

The FOCIS software package includes three software diskettes and a user's guide. It requires an IBM (AT/XT) or compatible PC with a color or monochrome monitor and a 10 megabyte or greater hard disk. The software package will be available from the Federal National Technical Information Service in early 1990. The career guidance portion of the system is expected to be ready in late 1990.

INTEGRATING CORRECTIONAL CLIENTS INTO THE WORKFORCE

GARY GRUETER, DIVISION OF CORRECTIONS
WISCONSIN DEPARTMENT OF HEALTH & SOCIAL SERVICES

Research predicts an increasingly heterogenous workforce. This may represent a window of opportunity for the growing correctional population, 80 percent of whom in Wisconsin are supervised outside of the confines of correctional institutions. Wisconsin's Department of Corrections offers a variety of employment and training programs to enhance the employability of its correctional clients.

Research predicts an increasingly heterogenous workforce involving greater participation among females and minorities. This represents a window of opportunity for those groups. It also represents an excellent opportunity for correctional clients, forty percent of whom are minority, fifty percent of whom are twenty-five or younger with obviously limited prior work histories, and twenty-nine percent of whom test at the sixth grade level or less. Unfortunately, correctional clients are not often looked upon as an employment resource.

What comes to mind when someone mentions corrections? Whether it's gothic looking prisons or modern institutions, most probably think about bars, walls and other accouterments of confinement. And why not? What else is there?

Actually, Wisconsin's correctional system is much more than bricks and mortar. At its best, it's about helping offenders change, helping them become productive members of society.

Consider, for instance, probation and parole. Approximately 80 percent of Wisconsin's offenders are closely supervised outside the confines of correctional institutions by probation and parole agents. In addition to having lower supervision costs, many are employed and paying restitution. Others participate in a variety of community treatment programs.

Local communities also benefit from the selective use of community corrections. For instance, many clients are required to perform community service hours as a form of community restitution.

But what about the earlier alluded to correctional institutions where approximately 20 percent of the offenders are incarcerated? What really happens behind the walls and fences?

First, it's important to realize that most inmates are eventually released back into their communities. The real question is how to best help them prepare for life after prison. Wisconsin's correctional system has a variety of treatment programs which do that.

Consider, for instance, the educational opportunities which are available. The Department offers programs ranging from Adult Basic Education all the way through post high school programs. And there are almost twenty different vocational offerings including Auto Body and Auto Mechanics, Cabinet Making, Data Entry and Word Processing, Welding, Small Engine Repair and Horticulture, with many meeting VTAE certification. Clearly inmates can use their time to upgrade their education.

Nor has training been limited to schools. Consider, for instance, employment. Because so many offenders lack basic job skills, correctional schools, industries, institutional jobs and work programs all emphasize the advantages of work. Obviously, the amount of work that must be done to maintain an institution is staggering. For instance, almost six thousand meals are prepared three times a day. Jobs range from cook to dishwasher. Then there is all the other work that has to be done. In most cases, inmates do a lot of the institution jobs.

Inmates also work at Badger State Industries which manufactures various items that are sold to both governmental and private, nonprofit agencies. For example, Badger State Industries prints the deer tags worn by thousands of Wisconsin hunter each fall. They also print fishing and hunting pamphlets and signs for the Wisconsin Department of Natural Resources. Then there is the wood furniture operation at Fox Lake Correctional Institution. Besides Badger State Industries, corrections has a major farm operation which employs between 125 and 150 inmates.

There are also various off grounds projects where correctional crews help other agencies accomplish projects that might otherwise not get done. The crews often work on Wisconsin Department of Natural Resource as well as local and county projects. In Green Bay, for instance, Sanger Powers Center inmates have worked at a variety of Brown County sites including the Barkhausen Waterfowl Preserve and at Heritage Hills. Obviously relationships like these are mutually beneficial. For while the sites get the advantage of additional help, the clients learn invaluable skills.

But correctional assistance has not been limited to off-grounds work. For instance, inmates at Oregon and Sanger Powers Correctional Centers help raise pheasants for Wisconsin Department of Natural Resources stocking programs. There is also a project where inmates at Thompson and Oakhill help renovate picnic tables for Dane County.

Corrections has also been handling bulk mailings for the Badger State Games and does data entry for the Wisconsin Department of Natural Resouces.

Then there's work release, a program under which minimum security inmates can hold jobs in the community. Almost 960 inmates participated on work release in 1988. From earnings of over $1.7 million dollars, they paid more than $320,000 in taxes and reimbursed the state more than $371,000 for their room, board and transportation. They also paid restitution and child support costs and are required to save a portion of the money for their release.

As should be evident, Wisconsin's correctional system offers a variety of employment and training programs. In addition to those mentioned, Wisconsin has several programs which primarily serve probationers and parolees.

One of these is the Community Service Corps. The Department organized the corps to help generate additional jobs for offenders. It has worked with various agencies around the state in providing both paid and unpaid opportunities for probationers, parolees and inmates. In Dane County, for instance, a Wisconsin Conservation Corps corrections crew worked on a Nature Conservancy Prairie, a Dane County ski trail, a Department of Natural Resources bike trail as well as the Ice Age Trail. The Community Service Corps has also worked with the the Wisconsin Department of Transporation, the Nature Conservancy, and the Job Training Partnership Act system among others in providing employment opportunities for offenders.

As another resource, Corrections also runs the Transitional Employment Program which primarily works with recently released parolees. The program includes both work experience and on-the-job components. Under work experience, clients are placed at public or private

nonprofit agencies for limited periods. These placements give clients the opportunity to earn money while improving their job seeking and job keeping skills. The job sites, meanwhile, benefit from the additional help.

In fiscal 1989, 325 parolees completed their work experience participation. Thirty day follow ups were done on 197 (60.6 percent) of them, revealing that 51.7 percent positively terminated from the program.

The Transitional Employment Program's on-the-job training component operates a little differently in that it reimburses businesses up to half of a client's wages for a negotiated period of time. In fiscal 1989, corrections wrote over 150 on-the-job training contracts with various businesses around the state. One hundred and sixty-four clients terminated their participation during that period. (Some of those who terminated began their participation during the previous fiscal year). One hundred and ten (67 percent) of the participants were employed within thirty days of termination.

Corrections also has the ability to help probationers and parolees get additional training. For example, the Training Opportunies for Placement Program (or TOPP) provides eligible clients scholarship assistance to attend local Vocational and Technical Adult Education colleges. TOPP has helped people who have been out of school for long periods of time to return.

As should be evident, Wisconsin's correctional system is much more than bricks and mortar. With its various treatment programs and with its strong community corrections focus, the system continues to provide a positive setting for clients to change their lives, to become productive members of society.

INTEGRATING REFUGEES INTO THE WORKPLACE THROUGH WELFARE REFORM INITIATIVES

DIANE PAVELSKI
JACK O'CONNELL
JOYCE PHILEN

Introduction

Former Secretary of Labor, Ann McLaughlin, noted in 1988 that "we are rapidly approaching a new century and a vastly different labor market from the one we know." Today, our remarks will focus on one aspect of that "different labor market," the Asian Hmong population.

For the U.S. population as a whole, worker education, training, and retraining will be critical to meeting the challenges of a rapidly changing, technologically advanced economy. This is even more true for the minority populations, particularly the immigrants who face not only a rapidly changing economy but also the integration into a society that is culturally and socially alien to them.

Less than 10 years ago, with high unemployment rates, the U.S. was of the mind-set that these immigrants were a population to be taken care of through welfare reform and some special initiatives to provide basic English speaking skills. The doors were pretty well closed for good job opportunities.

Today, that mentality has reversed itself. Today, it is a fact that there will be greater employment opportunities for this previously "underused" segment of the population. And there will be pressure to utilize this segment of the population to fill the "skill gap" that is being created by the slow growth of the U.S. work force.

Our presentation today will center on a model that has been created to provide a wider array of services to the Hmong population with the end goal of a skilled job. A model that other communities and organizations can use to help fill the "skill gap" increasing in our country.

Jack O'Connell and Joyce Philen work directly with our Hmong population and along with many others, have contributed hours of time and creativity of mind to implement this comprehensive program of services. At this time, I would like to call on Jack and Joyce to get to the guts of this presentation and some actions that may also work for you.

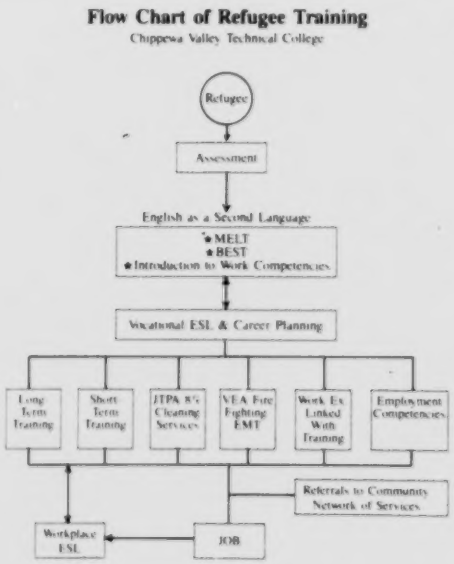
Hmong Background

Over 80,000 Laotian Hmong refugees have settled in the U.S. since the end of the Vietnamese War in 1975. They played a key role in the war by fighting as members of the CIA Secret Army in Laos. They fought infiltrating North Vietnamese soldiers who entered South Vietnam through the Ho Chi Minh trail in Laos.

When the communists took over Laos, the Hmong ethnic group, which mainly consists of hill tribesmen, was forced into prison camps because the Hmong were known to be fierce anti-communist fighters. Hmong refugees have escaped to Thailand by secretly crossing the Me Kong River. The Hmong population in Laos has been devastated by the war. Nearly one third of the population has died, another one third has fled to Thai refugee camps, and another third still remains in Laos.

Hmong refugees have settled in states such as California, Wisconsin, and Minnesota. Currently, 25,000 Hmong live in Wisconsin which has the second largest Hmong population in the U.S. and is second only to California. They bring with them special problems due to a lack of education opportunities; cultural isolation in the mountains of Laos and the devastation of their lifestyle because of the Vietnam War.

Figure I-Flow Chart of Refugee Training



ESL Levels

Chippewa Valley Technical College in Eau Claire has a comprehensive English as a Second Language (ESL) program enrolling over 200 Hmong students each time.

The Mainstream English Language Curriculum (MELT) is a standardized competency based program used by Chippewa Valley Technical College. It is designed specifically for Southeast Asian refugees. Seven levels of English as a Second Language instruction are available. Students are placed in the levels through an in-depth assessment of oral, written, and community survival skills via the BEST test.

The Chippewa Valley ESL program has groups at the following levels: intake, very beginning I and II, beginning I and II, intermediate I and II, advanced, prevocational, vocational, and workplace.

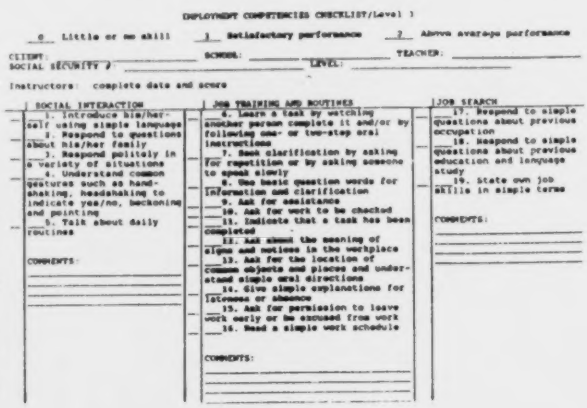
These classes usually meet three hours three to four times per week. The ESL program also offers an applied English class which meets weekly at various levels. Community living skills such as budgeting, cooking, parenting, and housing are taught based on student needs.

Math and computer literacy classes specifically designed for ESL students are taught at all levels. Intermediate and advanced ESL students are eligible to enroll in the Adult Basic Education learning center. Prevocational ESL students enroll in credit and noncredit vocational classes. Tutorial services including peer tutoring is also available as needed.

Work skills are integrated into the ESL curriculum. Student competencies at seven levels of the MELT curriculum are assessed in the areas of on-the-job social interaction, job seeking skills, and an understanding of career development.

ESL students identified as mandatory participants in the WEJT JOBS Welfare Reform Program are enrolled in weekly career classes which teach work competencies. A sample of a level 3 work competency sheet is illustrated (see Table I).

Table I-Employment Competency Checklist



EMPLOYMENT COMPETENCIES CHECKLIST/Level 3

0 Little or no skill 1 Satisfactory performance 2 Above average performance

CLIENT: SCHOOL: TEACHER:

SOCIAL SECURITY #: LEVEL:

Instructors: complete date and score

SOCIAL INTERACTION

___1. Introduce him/her-self using simple language

___2. Respond to questions about his/her family

___3. Respond politely in a variety of situations

___4. Understand common gestures such as hand-shaking, headshaking to indicate yes/no, beckoning and pointing

___5. Talk about daily routines

COMMENTS:

JOB TRAINING AND ROUTINES

___6. Learn a task by watching another person complete it and/or by following one- or two-step oral instructions

___7. Seek clarification by asking for repetition or by asking someone to speak slowly

___8. Use basic question words for information and clarification

___9. Ask for assistance

___10. Ask for work to be checked

___11. Indicate that a task has been completed

___12. Ask about the meaning of signs and notices in the workplace

___13. Ask for the location of common objects and places and under-stand simple oral directions

___14. Give simple explanations for lateness or absence

___15. Ask for permission to leave work early or be excused from work

___16. Read a simple work schedule

COMMENTS:

JOB SEARCH

___17. Respond to simple questions about previous occupation

___18. Respond to simple questions about previous education and language study

___19. State own job skills in simple terms

COMMENTS:

Vocational ESL and Career Planning

Throughout the ESL curriculums, from Very Beginning ESL to Advanced, emphasis is placed on practical, applicable vocational ESL and career planning.

As students progress and are tracked for a degree program, they meet with a specialized teacher who schedules them for specific courses to increase their level of "readiness" for further training. Initial classes are noncredit continuing education classes to expose them to a variety of occupations. As they progress, general education classes are added, where they can attend regular ESL classes and "branch out" to credit classes. This assures the student begins regular credit classes in a systematic manner, to ensure their success.

Program Components

Various components are available to assist students in finding the educational level or methodology that works best for them. Placement into the various components is dependent on many factors, which are reviewed by staff and agreed upon with the student as the most appropriate.

The following is a brief description of each component:

Long-term Training

Consists of degree program training; one-year diploma or two-year associate degree programs. Assistance is provided by a specialized ESL teacher who meets weekly with each of the Hmong students to problem-solve issues, to provide tutoring, and to assist with the registration/financial assistance process.

Also, when a student is selected for the welfare reform program, assistance is given in the form of an on-site counselor/facilitator to intervene on their behalf with accessing school and community resources and in funding assistance for books and tuition.

Short-term Training

Consists of short-term training classes in high demand areas. Enrollment in noncredit continuing education classes is encouraged as an exploration tool useful for refugees with little or no work experience. Students gain experience in classroom settings but as a no grade, noncredit situation. Examples of training areas in demand are: keyboarding, welding, machine tool, woodworking, beginning clothing, and blueprint reading.

As more referrals are made into the welfare reform initiative program, additional short-term training sessions in nursing assistant training have been held. There is a critical shortage of trained nursing assistants, and the 8-week course offers an avenue to provide skilled workers within a short turnaround time. As of yet, refugees have not entered this area, but it is a viable option that is being explored as more people progress from ESL to training programs.

Chippewa Valley Technical College has initiated a yearly survey to area employers to assess their need for trained workers of a short-term training nature. The survey will assess the local labor market's shifts and hopefully identify skilled worker shortages long before they become critical. The welfare program referrals, of which a portion is comprised of the refugee population, will be targeted to meet those training programs. The last survey, conducted in April 1989, confirmed that 53 percent of Chippewa Valley Technical College area employers were experiencing some difficulty in recruiting workers, but the survey did not indicate any clear occupations emerging as shortage areas. Chippewa Valley Technical College will continue the survey annually to assess the situation and act quickly with training sessions if the need arises.

JTPA 8% Cross Cultural Cleaning Services

A combination ESL class and cleaning service is sponsored at Chippewa Valley Technical College under JTPA funding. Refugees participate in 8 hours of weekly ESL instruction in the instructor's home, and in addition, receive up to 10 hours a week of cleaning service instruction in an actual home setting.

As students progress in their understanding of English, instruction is given on following cleaning supplies manufacturer's directions, cleaning private residences and commercial buildings. Students follow a rigorous training program before actually working in a private home. They are paired with others who are trained and checked carefully by their supervisor before ever working independently.

VEA Fire Fighting/EMT

A one-year fire fighting and emergency medical technician program is offered to 15 Hmong refugees. They enroll for a semester in each area. In addition to classroom preparation, the students intern with ambulance services and fire departments. Most of the fire fighting instruction is taught in a local fire station. The major challenge of this program is the fact that Hmong refugees need to have a very high basic skill level in order to enroll. Two thirds of the students enrolled have already completed other training programs such as machine tool operation, automechanics, and data processing.

Work Experience Linked With Training

Some refugee students attend ESL classes while simultaneously working at a job, either in the public or private sector. Under the new welfare initiative reform program, a work program began that developed work sites in the public sector (schools, hospitals, libraries, etc.) where an AFDC recipient would work up to 28 hours a week for 16 consecutive weeks. The work is unpaid, in lieu of the already existing monthly AFDC payment the recipient receives. Support services, such as transportation and child care, are provided, and all insurance costs are covered by the program operator. The goal is to provide up-to-date work experience and the development of current work references.

Welfare reform program operators in Eau Claire, Wisconsin, went one step further with the work experience program. While the Hmong refugees were working at their public work sites during the summer, they also attended a weekly vocational English class at Chippewa Valley Technical College.

131 BEST COPY AVAILABLE

Discussion and exercises centered on their experiences while on the job; problems encountered were language barriers, "fitting in" at the work environment, both vocationally and socially, short- and long-term goal planning, and understanding the world of work.

In addition to Chippewa Valley Technical College's weekly vocational English class, the students/employees attended the work experience program operator's weekly Job Club, where additional practical information on resume writing, interviewing, and other job seeking skills training topics were covered.

For most of the refugees, this was their first job in America. The positions were entry level in nature which reflected their lack of work experience. The important value of the job was to develop practical work experience and utilize the job as a stepping stone to future employment possibilities.

Overall, the refugees were given high marks by their work supervisors and were assured they would be getting favorable references to use in future job searches. Plans are underway to continue this program on a year-round basis (see Table II).

Table II-Work Experience Linked With Training - Welfare Reform Initiative Project

Chippewa Valley Technical College
Eau Claire Department of Human Services
Western Dairyland Project Employment

June - September 1989

Target Group

Hmong students enrolled in English as a Second Language who are in the Intermediate and Advanced levels.

Additional Prerequisite Coursework

Participation in "Introduction to the World of Work," welfare initiative reform selected students were required to attend class to develop a greater awareness of work demands, appropriate behaviors, and career planning strategies.

Time Frame

Summer recess from regular ESL.

Structure

34-hour week comprised of:

* 28 hours - working at public work site, no pay, in lieu of AFDC payment. Work site chosen for interest and aptitude areas. All insurance costs covered by program operator, no costs to the employer.

* 4 hours - attend job seeking skills class with work program operator. Emphasis on resume writing, interviewing, job development, etc.

* 2 hours - attend Chippewa Valley Technical College Vocational English class. Review past week's progress, discuss issues related to English comprehension on the job, practical applied English exercises used.

34 total hours for 16 weeks.

Goals

Career planning, development of current work history, establish work reference, increase positive work behaviors and work tolerance levels, enhance development of English skills by practical application with others at work sites, assimilation of refugee into the workplace (i.e. coffee breaks, etc.).

Employment Competencies

In conjunction with the mainstream ESL program, an employment related model is used to identify and develop employment related competencies. Six levels are identified, each with clearly delineated, higher degrees of complexity. The intent is to match people to jobs where the competency level can be documented as attained.

The mastery of the skill level is shared with job development/placement personnel for planning purposes.

Reinforcement of skill attainment is stressed with the refugee to increase their perception of the following: 1) their English is at an acceptable level for employment at various levels; 2) they need to disclaim the notion they cannot get a job until their English is better.

Community Network of Services

Special emphasis needs to be placed on the challenge of introducing ESL literacy skills and vocational training to a group of people who have had little formal education in their home country. They also need to enter the job market and reduce their welfare dependency on AFDC-U. However, due to large family sizes and a tradition of early marriages, it is difficult for Hmong refugees to become self-sufficient. The new JOBS legislation which introduces welfare reform initiatives will help in this process by providing more funds for

child care, training, and work experience opportunities.

In order to implement the welfare reform program, a network of community groups and agencies works together to provide services such as intake, assessment, training, ESL, vocational training, work experience, and job placement. Community services such as assistance with health, housing, personal adjustment, and cultural adaptation play a crucial role in this transition from welfare dependency to self-sufficiency.

Groups in the Eau Claire area which are involved in this network of community service include (see Table III):

Table III-Community Network of Services

Department of Human Services

* Financial Assistance Payments
* Comprehensive Family Services
* Employment & Training Case Management (WEJT) (JOBS)
* Supportive Services (child care, transportation)

Hmong Mutual Assistance Association

* Key States Initiative J.B. Development
* Southeast Asian Cultural Understanding
* Referral to Community Programs

Chippewa Valley Technical College

* Assessment/Skill Identification
* English as a Second Language
* Skill Training
* Vocational ESL & Career Planning
* Basic Skill, Adult Basic Education

Job Service

* Motivational Training
* Job Seeking Skill Training
* Job Placement Assistance
* Work Supplementation (WEJT) (JOBS)

Volunteer Organizations

* R.S.V.P. Hmong Tutoring Center
* Lutheran Social Services (mentoring program)
* Diocese of La Crosse (sponsorship program)
* Literacy Volunteer of America
* Church and Service Clubs

Private Industry Council/CBO's

* Assessment/Skill Identification
* Job Seeking Skill Training
* Job Placement Assistance
* Community Work Experience
* Educational Funding
* Employer Incentives

University of Wisconsin-Eau Claire

* Assessment of Special Needs
* Teacher Preparation
* Hmong Community Tutoring Center

Eau Claire School District K-12

* Transition to Voc. Ed. Program
* Parent Involvement in Schools

City of Eau Claire

* Minority Intern Program
* Housing Assistance
* Community Services (i.e. Health, Police, Library, etc.)

Hmong Americans: Joining the Work Force

In addition, students are introduced to the Hmong language video series, "Hmong Americans: Joining the Work Force." This series of eight Hmong-language video programs and accompanying facilitator's guide uses a positive approach to a discussion of welfare, the work ethic, and the initiative needed to succeed in America. Extensive consideration is given to the major obstacles to Hmong self-sufficiency.

The programs and accompanying materials are designed for use by Hmong immigrants, ESL instructors, vocational counselors, refugee advocacy groups, social service providers, and job placement personnel.

Each session provides a minimum of 45 to 55 minutes of educational programming. Videos run 10 to 20 minutes in length. And, the facilitator's guide includes pre- and post-viewing activities, along with program summaries and objectives, vocabulary, preparation notes for the facilitator, and English-language scripts.

Elements of Hmong culture are woven into the scripts, with frequent comparisons made between Hmong and American cultures. Whenever possible, emphasis is placed on similarities between the cultures in an attempt to lessen the refugees' sense of alienation while increasing their confidence and self-esteem.

In each program, Hmong viewers have a chance to observe Hmongs like themselves who are succeeding in the struggle to live independently in the U.S. Viewers are reminded that adaptation is an ongoing aspect of Hmong history--not something that is being asked just of their generation. The series titles include:

-"Immigrant Expectations, Immigrant Experiences, Goal Setting"

-"What is Welfare and Where Does it Come From?"

-"Some Welfare Regulations Affecting Education and Work"

-"Reasons to Learn to Live Without Welfare"

-"Learning English"

-"Job Assessment and Training"

-"Getting and Keeping a Job"

-"Child Care"

Acknowledgments

Project Director:
Jim Kissinger, Regional Representative
WHWC-TV/28 & WHLA-TV/31

Project Writers:
Elizabeth and Daniel Perkins
Quinnowen Communications

Video series produced by the University of Wisconsin-Stout Teleproduction Center for Education Services, Wisconsin Public Television Network.

In cooperation with: Wisconsin Department of Health and Social Services; Division of Community Services; Refugee Assistance Office; Eau Claire Area Hmong Mutual Assistance Association, Inc.; Chippewa Valley Technical College.

Tape Dubbing Service

In Wisconsin, to schedule this series on your local ITFS NARROWCAST Channel or for more information on Tape Dubbing Services and the Facilitator's Guide, write or call:

Education Services
Wisconsin Public Television Network
3319 West Beltline Highway
Madison, WI 53713
(608) 273-5500

The video series sells for $66; the Facilitator's Guide costs $2.

INTERCULTURAL TRAINING FOR THE 21st CENTURY: ONE CONSULTANT'S EXPERIENCE

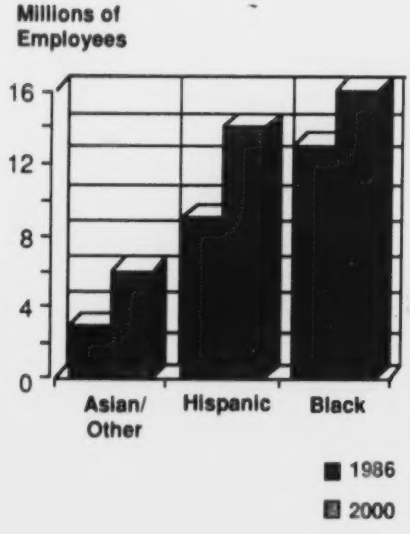
Selma Myers

By the year 2000, Blacks, Hispanics, Asians and other minorities will be the majority in the California workforce. Nationally, it is projected that in the next decade, the percentage of Blacks in the U.S. workforce will increase by 28%, Hispanics by 75.3% and Asians and others by 80.6% (Statistics from the U.S. Bureau of Labor)

Organizations who value and learn to deal effectively with the multicultural workforce will be in the best position to benefit from cultural diversity.

Through training, an organization's level of awareness can be raised to appreciate cultural differences in terms of their positive contribution.

Growth in the U.S. Minority Workforce



MULTICULTURAL ISSUES IN THE WORKPLACE

Incorrect assumptions about diverse cultures

Expectations that others will conform

Biases against the unfamiliar

Language problems leading to miscommunication and misinterpretation

Traditional American values in conflict with values of other cultures

THE VALUE OF A MULTICULTURAL WORKFORCE

Exciting mix of ideas from different orientations

Wider pool of skills from which to draw

Synergy

Broader perspectives

Greater group effectiveness

Better decision-making

Increased creativity

More success in international and multicultural marketplace

THE KEYS TO INTERCULTURAL TRAINING

INCREASED AWARENESS

1. Impact of culture
2. Your organization's cultural baggage
3. Others' cultural baggage
4. Stereotyping

ALTERNATIVE BEHAVIORS

1. Develop patience
2. Empathize
3. Build trust
4. Find commonalities
5. Learn about different cultures and values
6. Be nonjudgmental

NEW SKILLS

1. Test accuracy of inference and assumptions
2. Develop active listening skills
3. Check for understanding
4. Recognize different nonverbal behavior
5. Respect others - see them as individuals

What assumptions about values, motivation, perceptions and communication does your organization now hold in its cultural baggage which may be interfering with its ability to effectively deal with other cultures?

Participative management
Say what you mean
Public recognition
Ambition
Egalitarianism
Individualism
Mobility

The assumptions, expectations and biases in the American mainstream business community are not always reflected in other cultures.

Authoritarian managment
Avoidance of conflict
Self-effacement
Hierarchal management
"Don't make waves" approach
Collectivism
Stability

THE BENEFITS OF INTERCULTURAL TRAINING

Lower turnover
Reduced miscommunication and misinterpretation
Lowered frustration
Attraction of the best workers from other cultures
Increased productivity
Improved morale
Better performing teams
More creative problem-solving

Intercultural Training: The Use of the "Intercultural Sensitizer"

Amy S. Tolbert, Ph.D., A.B.D.

Abstract

It is now said that United States' business is global business (Albert, 1983; Brislin, 1987; Gudykunst & Hammer, 1983). This brings cross-cultural or intercultural training to the forefront of business interactions. Topics discussed during this presentation include: 1) cross-cultural training approaches, 2) an in-depth look at attribution training, 3) the advantages and limitations of attribution training using the "Intercultural Sensitizer" training tool, and 4) each participant was able to sample the intercultural sensitizer, and a discussion of its various uses followed.

Cross-cultural training deals with problems that have become central to today's world: how can we live and grow with others from various cultural backgrounds? Despite its importance, no widely accepted procedures or instruments for intercultural training techniques have been identified, other than the intercultural sensitizer (Gudykunst & Hammer, 1983). The intercultural sensitizer is a cross-cultural training tool which is designed to increase the likelihood that trained individuals can make accurate interpretations concerning behavior observed in individuals from other cultural groups (Albert, 1983).

Cross-cultural training encourages more open learning. For our purposes, cross-cultural training was defined as the formalized, short-range, planned programs that prepare people to live, work abroad successfully. There is a four-part criteria that defines the success of cross-cultural training programs (Brislin, 1988). Those four elements are: 1) the individuals feel comfort at home in the new culture (absence of sickness, etc.), 2) the hosts also feel that same level of comfort, 3) task effectiveness (maintenance of project, budget, etc.), and 4) the absence of invisible symptoms (a. physical - high blood pressure, eye problems, ulcers, and b. psychological - assessment tests may be used to identify individuals that are more anxious than they may admit).

Cross-Cultural Training Approaches

There are many typologies available in the literature that address training approaches and methodologies. The categorization chosen for review is listed below (Brislin, et al., 1983; Gudykunst and Hammer, 1983; Triandis 1977). Discussion included the advantages, disadvantages, and various training techniques that can be employed for each approach.

Cognitive/Fact-Oriented. This approach includes lectures, videos, readings, group discussions, a list of do's and dont's. This has been proven to be a very efficient approach to training, but it is possible that it can cause memory strain when trainees are not accustomed to this information-packed style.

Culture Awareness. This approach introduces the complex concept of culture to participants BEFORE they experience life abroad. This is a study of one's own culture, followed by a discussion that addresses the complex concept of culture. Culture was defined as the beliefs, values, attitudes and characteristics that underly a group of people. There are many exercises published in the literature (Intercultural Press and SAGE Publications) that can be used for this approach. An advantage of this approach is that it brings the issue of culture to the forefront, yet there is no research that supports whether this approach assists trainees in adjusting to the new culture.

Behavior Modification. This approach is based in psychology, therefore it requires trainers that are knowledgeable about the learning principles necessary to successfully implement the techniques. This approach focuses on the other culture, therefore the trainers must have a wide knowledge base of other cultures. One technique that can be used in this approach begins with asking participants to analyze the rewards and punishments they receive for certain behaviors in their own culture. The participants then read materials about the target culture or talk to individuals from, or who have experienced, the target culture. Trainees

compare the target culture's reward/ punishment system with their own, and list the behaviors that lead to positive and negative reinforcement. This technique helps trainees to narrow down their interpretations of situations and put their own actions/behaviors into perspective.

Attribution Training. The approach helps people to make isomorphic attributions. Isomorphic attributions allow people to see the same situation from another person's point of view; in other words, to make inferences about the causes of behavior (Albert, 1983). One technique for this approach is the culture assimilator, or the intercultural sensitizer instrument (Albert, 1983; Brislin, et al., 1986), which utilizes the critical incident method. The culture assimilator is a short story revolving around a cultural misunderstanding. The story is followed by 4-5 possible explanations for the cause of the conflict. Each explanation is followed by a rationale which gives the readers immediate feedback on their performance. As with cross-cultural training, it is possible to have culture-general and/or culture-specific assimilators.

Experiential. This approach introduces the nature of the lifestyle in the target culture by imitating that culture. A high immersion experiental technique may involve recreating the culture in a "mock island" setting where the participants are immersed for a given time period (usually 2 weeks). This level involves a great risk and can be a very intense experience for the participants. A medium-risk technique for this approach may be a field trip; a low-risk experience may be a role-play situation where trainees act out specific roles. Researchers contend that it is most beneficial to begin with the lower risk techniques (role-plays) and move into the higher risk techniques.

Interaction. This approach works well when combined with the experiential approach. Trainees interact with host nationals and "old hands" or expatriates. This approach is generally easy to build into training programs, however, the nationals or expatriates may not be good public speakers or may concentrate too heavily on the list of "don'ts" for the trainees.

It is important to point out that there is no panacea for effective cross-cultural training. Of the approaches listed above, they should not be singled out and used alone. There is no one best approach; these approaches provide the most benefit when combined. They need to be mixed and ordered according to the target audience, training goals, monies available, experience of the trainer(s), and time allotted. Each approach has its pros and cons; when these approaches are mixed appropriately, they produce the best and most favorable results.

Advantages of the Intercultural Sensitizer. There are several advantages of the Intercultural Sensitizer: 1) exposes trainees to a wide range of situations and behaviors, 2) can be facilitated in a short period of time, 3) is cost-effective, 4) can be broad, focused, or tailor-made, 5) is a very flexible training tool, 6) no additional resources are necessary--it is easy to use, 7) can be used over and over again, 8) can be combined easily with other cross-cultural training approaches, 9) has been shown to be effective through various research studies (Albert, 1983).

Limitations of the Intercultural Sensitizer. As with all other training techniques, there are limitations to the Intercultural Sensitizer: 1) some causes of misunderstanding may not be covered, 2) what can be taught is limited to what can be imparted verbally, 3) the trainees may put too much empahsis on the more obvious aspects of the episodes and not on the more important underlying principles, 4) may be difficult to convey complex interactions to the trainees, 5) for behavior and attitude changes, there are other approaches that may be more effective, 6) as culture is an everchanging part of our lives, the culture-specific sensitizers require constant updating, 7) constructing an intercultural sensitizer is a time-consuming, labor-intensive and difficult task (Albert, 1983).

Venezuelan Intercultural Sensitizer

This author has researched, written and validated a series of episodes towards the creation of a Venezuelan Intercultural Sensitizer, designed specifically to assist U.S. business professionals in conducting business with venezuelans. The research was based on a five-stage design by Albert (1983).

For further information on the research or cross-cultural training program designs, please contact Amy S. Tolbert, Ph.D., A.B.D. 600 Cleveland Ave. S.W. #5 New Brighton, MN. 55112, or call (612) 636-4842.

References

Albert, R. (1983). The intercultural sensitizer or culture assimilator: A cognitive approach. In D. Landis & R. Brislin (Eds.), Handbook of intercultural training (Vol. II). New York: Pergamon.

Brislin, R. (1988). Personal Interview.

Brislin, R., Cushner, K., Cherrie, C., & Yong, M. (1986). Intercultural interactions. Beverly Hills, CA: SAGE.

Gudykunst, W. & Hammer, M. (1983). Basic training design: Approaches to intercultrual training. In D. Landis & R. Brislin (Eds.), Handbook of intercultural training (Vol. 1). New York: Pergamon.

Triandis, H. (1977). Theoretical framework for evaluation of cross-cultural training effectiveness. International Journal of Intercultural Relations. 1(4), 19-45.

LINKING ECONOMIC DEVELOPMENT LOANS, JTPA AND VOCATIONAL EDUCATION IN NORTH PHILADELPHIA ENTERPRISE ZONES

W. M. Christman, III
Vice President, Research and Planning
Philadelphia Industrial Development Corporation

Abstract

Philadelphia has forged a demonstration linking JTPA-eligible job seekers to businesses receiving economic development incentives. New collaboration has been established with the voc ed department of a largely minority group high school located nearby two Enterprise Zones. Further linkage with employers and an industrial resource center assists in keeping curriculum state-of-the-art, and may provide new training and employment opportunities.

Economic Context

The coterminous City and County of Philadelphia is the center of an eight-county regional labor market which also includes Bucks, Chester, Delaware, and Montgomery Counties, Pennsylvania; and Burlington, Camden, and Gloucester Counties, New Jersey. Estimated nonagricultural payrolls for the labor market totaled 2,182,800 jobs in July 1989, with Philadelphia (779,300 jobs) holding a share of 35.7 percent.

The regional economy is in the sixth consecutive year of expanding payrolls. Philadelphia has added 41,000 net new jobs (+5.5%) during this expansion. While payrolls have grown at over twice this rate in the suburbs, the years since 1984 still stand out as the first period of sustained employment growth within the central city in over two decades.

Resident labor force in Philadelphia has remained relatively static at the same time that establishment employment has been expanding. The current Philadelphia County resident labor force of 732,000 workers is characterized by sub-sets including 36.6% Black, 4.1% Hispanic, 49.2% Female, and 6.7% aged 16 to 19 years.

This combination of expanding employment opportunities and (at least in the city) a static labor force has produced low unemployment rates: 3.4% for the labor market and 4.7% for the city in March 1989. Setting aside the issue of labor force drop-outs, this unemployment rate for the city actually was lower than the equivalent percentage (5.0%) for the U.S. economy.

Finally, structural change has proceeded even further in Philadelphia than it has in the U.S. economy, with the employment share of the Manufacturing Sector standing at 17% in the labor market and 12% in the city, versus about 20% at the national level. These broad sectoral numbers, however, mask the vigor which appears in a more-micro analysis of manufacturing. In the five counties of Southeastern Pennsylvania, for example, there are 120 sub-industries in which employment or the number of establishments has expanded in recent years.

Institutional Context

The Philadelphia Industrial Development Corporation (PIDC) was organized in 1958 as a non-profit partnership of the Greater Philadelphia Chamber of Commerce and the City of Philadelphia. Over the past three decades, PIDC has participated in 2,900 transactions, accounting for $3.4 billion in total investment. Activity in 1988 encompassed 73 projects, $314.0 million in total investment, 4,647 existing jobs, and 1,879 projected new jobs. In addition to financial services, PIDC has developed a network of industrial parks; manages the Philadelphia Food Distribution Center; and provides project management services for major real estate developments such as the expansion of Philadelphia International Airport, and Penn's Landing on the Central Business District waterfront.

The Private Industry Council of Philadelphia (PIC) placed a record number of 5,562 unemployed residents in full-time jobs during FY1988, the most-recent time period for which a complete analysis of program participants is available. The profile of Philadelphia participants is weighted more to groups most in need than the national profile of JTPA participants: 89% Minorities (versus 50% nationally), 55% Welfare Recipients (versus 43% nationally), 55% Females (versus 52% nationally), and 56% under 22 years old (versus 44% nationally). In 1988 the National Alliance of Business selected the Philadelphia PIC as "PIC of the Year," the highest honor which can be achieved by a Private Industry Council.

The Philadelphia High School Academies Program was initiated in 1969 by the Philadelphia Urban Coalition, in collaboration with the School District of Philadelphia, in order to provide disadvantaged, inner-city high school students with marketable job skills. The Program emphasizes active partnership between business and industry, and the public schools. Beginning with the first Academy at Thomas Edison High School in North Philadelphia, it has expanded to six Academies operating in eleven high schools, and enrolling 1,500 students.

Functioning as "schools within schools," the Academies provide vocational education and career development by relating the study of basic skills and social studies to the vocational demands associated with a chosen career path. The Academies Program is directed by the Board of Directors of the Philadelphia High School Academies, Inc. Each individual Academy is managed by a Board of Governors which oversees the day-to-day operations of its Academy. From the School District, the Academies receive academic and vocational instructional staff, facilities, equipment and supplies, supportive administrative services, and students. Business and industry provide the Academies with managerial expertise, curriculum advice, help in creating work opportunities for students, and financial support.

The Delaware Valley Industrial Resource Center (DVIRC) was established in 1988 as a business-to-business economic development organization which provides a comprehensive range of programs and services that enable small and medium size manufacturers in the Delaware Valley to strengthen their competitive position through increased productivity, efficiency and quality. DVIRC is one of a network of nine IRCs created across the state under a recent initiative of the Commonwealth of Pennsylvania. Substantive services were provided to 74 establishments throughout Southeastern Pennsylvania during the first year of operation.

PIDC/PIC Collaboration

PIDC's introduction to the skills training system came in 1976 with the Area Manpower Planning Council, the old CETA Prime Sponsor. An external stimulus to breaking down traditionally compartmentalized mindsets among different agencies was provided by Philadelphia being selected as one of ten cities across the United States to participate in a Federal Commerce/HUD/Labor "Joint Economic Development" demonstration program. In 1978 PIDC shifted its institutional relationship to the newly-organized Private Industry Council.

At about the same time during the late 1970's, PIDC was active in developing a direct loan and grant capacity. Because the source of funds was Federal in origin, firms using these programs have a contractual obligation to submit three annual employment reports. In addition to information on low and moderate income jobs as required by the Federal Government, PIDC also took this opportunity to begin to track Minority Group and Female employment. To cite the most-recent year, for example, PIDC knows that 41 firms receiving direct assistance in 1988 had an aggregate employment including 44.8% Minority Group and 50.9% Female, both higher than the respective labor force benchmarks.

The objective of PIDC/PIC collaboration is to maximize the opportunity of disadvantaged groups to benefit from employment created by firms receiving direct loans and grants, and to assist these clients to obtain a qualified workforce.

Towards this end, the commitment package sent to a firm after its transaction has been approved by the PIDC Board includes the requirement that they contact the PIC, and give the PIC the right of first

refusal in filling the new employment requirements created by their PIDC-financed expansion. PIDC provides the PIC with a copy of this correspondence, so that the PIC can follow up if the firms fails to contact them. Following a lead time to enable the firm to physically carry out the financed improvements, PIC staff calls upon the firm to provide the appropriate job development services. PIDC staff may accompany and introduce PIC staff in the case of a major client. These efforts have produced a bottom line of 2,532 PIC placements with PIDC employers during the three most-recent fiscal years ending June 30, 1989.

Focus on North Philadelphia

While PIDC has a charter to develop jobs and tax rateables city-wide, and while the largest concentrations of industrial park acreage are located at the northeast and southwest peripheries of the city, the inner-city neighborhoods of North Philadelphia have emerged as the single most-important locus of firm-specific PIDC activity. In 1988, for instance, one-third of all PIDC transactions were located in North Philadelphia or the adjacent River Wards.

North Philadelphia begins just north of the Central Business District and continues about four miles along North Broad Street, which roughly bisects a land area of approximately 14 square miles. By a variety of measures, North Philadelphia and the contiguous Kensington neighborhood in the River Wards exhibit the most serious social and economic conditions of any section of the city.

North Philadelphia neighborhoods developed during the 19th century as a crazy-quilt of mixed industrial and residential land uses. The close proximity of places of residence, work, and worship constituted a highly functional paradigm of social and economic organization, which exhibits residual strength today even after decades of battering by structural change. Despite an area context exhibiting obvious physical and social problems, employers still cite central location, real estate values, and labor force access as site location advantages.

PIDC has over 200 clients with active financing located in North Philadelphia, weighted approximately 50% to the Manufacturing Sector and approximately 25% to the Wholesale Trade Sector.

Two of the four Enterprise Zones in Philadelphia are located within North Philadelphia. The American Street Enterprise Zone is home to approximately 400 firms in a north-south corridor in the quadrants east of Broad Street. The Hunting Park West Enterprise Zone is home to approximately 260 firms in an east-west corridor in the quadrants west of Broad Street. These two Enterprise Zones exhibit markedly different textures. American Street is heavily industrial in land use, and dominated by small establishments. In contrast, Hunting Park West is characterized by mixed industrial and residential uses, and is anchored by several extremely large manufacturing plants.

In 1987, the City Administration directed all departments and agencies to commit new resources on a coordinated basis to address the problems of North Philadelphia. The response of PIDC was to budget its new annual allocation of Community Development Block Grant dollars to North Philadelphia (and a third Enterprise Zone located in West Philadelphia), and to increase its maximum loan participation from $350,000 to $500,000 a project for transactions located within the target area. Since July 1987, PIDC has participated in over 50 transactions in North Philadelphia, involving over $100.0 million in total investment, 2,900 existing jobs, and 850 projected new jobs.

Can't Anyone Here Play This Game?

A new reality dawned early in 1988, as without prior warning clients began to call their PIDC loan officers to request assistance in finding qualified workers. They were talking union manufacturing jobs, not short order cooks, and not finding any takers. Spot labor shortages clearly had reached the inner city, and business-as-usual (the PIDC/PIC collaboration) would have to be augmented.

Discussing these new circumstances, staff at the Philadelphia High School Academies suggested that PIDC contact Thomas Edison High School, which was about to dedicate a new educational plant at 2nd and Luzerne Streets in North Philadelphia just north of the American Street Enterprise Zone. The new facility was enabling Edison to expand its voc ed curriculum, in over two dozen trade laboratories fitted out with state-of-the-art machinery and equipment.

Working with Edison made sense to PIDC in terms of the superb resource of the new facilities; the target population (a student body weighted 65% Hispanic and 27% Black); the size of the established client base of North Philadelphia firms to serve as potential employers; and the 1987 policy direction of the City Administration to emphasize North Philadelphia.

New Adventures in Voc Ed

An immediate PIDC/Edison strategy is to capitalize on the resource of graduating seniors. Because the new Edison facility was not fully operational in September 1988, and came on-line only piece-by-piece during the academic year,

there were not that many graduating voc ed seniors in June 1989. However, the groundwork for future years has been put in place by developing a procedure in which PIC staff come into the school as early as April to pre-certify seniors as JTPA-eligible. Also, PIDC has begun to promote the resource of Edison graduates in its quarterly newsletter, which is sent to all clients with active financing.

After inspecting the new CAD/CAM equipment being installed, PIDC requested the Delaware Valley Industrial Resource Center to advise Edison on machine shop curriculum. Metalworking is an area of special concern to DVIRC, which has organized a group of two dozen small machine shops, and is looking to explore some of the strategies developed abroad under the rubric of "flexible manufacturing networks."

This initial contact between Edison and DVIRC quickly led to additional collaboration. Looking to meet its long-term need for qualified workers, the DVIRC group is working towards establishing a Metalworking Academy at Edison to open in September 1990. This would be the first metalworking unit within the High School Academies network. To meet shorter-term needs, the DVIRC group is finalizing a demonstration proposal for state and foundation funding, involving the training of Hispanic women at Edison in this non-traditional occupation.

Back to the Future

A quick review of abstracts suggests that many Special Sessions at this National Conference are rooted in the supply side. Workforce specialists are seeking ways to enhance this workforce to meet the demands of the 21st century.

This session, however, provides the contrast or relief of a demand-side perspective. PIDC, an old-line economic developer, has real companies with real demands, desperately seeking supply and seeking it now.

Economic developers, especially economic developers in older industrial cities, have done many things in recent decades. We have run site location analysis for out-of-town prospects; processed tax-exempt transactions when we had the tool; developed subordinated direct lending; and leveraged special programs such as Urban Development Action Grants. Throughout all this activity, however, we took as given an abundant supply of surplus labor.

But today the profession faces a watershed. Surplus labor, - at least qualified surplus labor, - has dried up. There is a real and growing market for labor market services at precisely the time when we face diminished opportunities to provide traditional financial incentives.

Urban practitioners in particular should recall the paradigm programs established as early as the 1960s by then-rural states such as South Carolina that lacked an established base of qualified workers. Different cities may forge different demonstrations based on differing economic and institutional contexts, but it is likely that most economic developers will be turning back to the future to emphasize work force readiness and skills training.

MEETING THE WORKFORCE NEEDS FOR CHILD/ELDER CARE: A TRAINING MODEL FOR WORKERS WITH DEVELOPMENTAL DISABILITIES

SCOTT MEYER, MSW, Ph.D. and SUSAN L. BABIN, MPA

Abstract

The current demographic trends in our nation indicate that as our population ages, our current workforce will not be sufficient to meet the market demands. This problem is compounded with our current economic demands on the modern family. Child and elder care, once functions of the family, are rapidly becoming institutionalized services due to the need for dual wage earner families. Therefore, it is imperative that we seek to train new untapped labor sources in order to meet these growing needs. People with developmental disabilities are one such population of an untapped labor source. With the creation of a training program which competently prepares people with these disabilities for the responsible jobs of caring for our nation's children and senior citizens, our country shall be better able to utilize our current population to meet the mounting demands for the quality provision of these services. Beyond the obvious labor need which is met, this model also improves the quality of life for people with disabilities while simultaneously decreasing the taxpayer burden (disability benefits) previously thought to be the only solution to the "problems" of people with disabilities.

Introduction

The population of our nation is aging at a rapid pace. Currently one out of every eleven Americans is over 65; by the year 2030, one out of five Americans will be over 65 (UNH News Service, 1988). This fact has multiple effects upon the growing demand for both child and elder care services.

Regarding child care services, changes in the average age of marriage and child bearing are creating older grandparents. Given the fact that the majority of child care in our country is provided by relatives (Reiss and Lee, 1988), this change in demography may influence the physical ability of grandparents to be a part of this most common form of child care.

The issue of elder care is impacted by our aging society in several ways. First, the fact that longer life is correlated with the likelihood of developing some form of chronic illness which limits activity capabilities, indicates that increasing numbers of elderly in our nation will require some form of care in their daily activities. In 1980, 10.8 million people over 65 had some degree of limitation in daily activity due to chronic illness. By the year 2000, this figure will rise to an estimated 16.4 million and by the year 2050 to an estimate of a staggering 31.8 million people over age 65. The second issue is the young and elderly support ratio. In 1900 there were about 7 people over 65 for every 100 persons ages 18 to 64 years. In 1982, that ratio was almost 19 people over 65 per 100 persons 18 to 64 years old. By the year 2000 the ratio is expected to increase to 21 per 100 and then surge to 38 per 100 by the year 2050 (U.S. Senate special Committee on Aging, 1984).

Our rising costs of living have changed the role of the woman in the American family. By 1982, 53% of all married women in the U.S. were either working for pay or looking for work; this compares to 14% in 1940 and 22% in 1948 (Reiss and Lee, 1988). The absence of the female from the home for economic reasons has diminished the ability of the American family to provide both child and elder care. The elder care dynamics are also influenced by the relocation demands of corporate America which have geographically displaced couples from their communities of origin where their aging parents remain.

One additional point regarding the aging population and child and elder care is the fact that many people over 65 who either want to work or who financially must work, may not be physically able to withstand many of the particular rigors and risks of child care and elder care. This fact continues to highlight the need to develop new able-bodied and well trained personnel to meet these needs.

In 1980, 51.7% of all children in two parent families had mothers in the labor force. By 1990, it is estimated that there will be 10.4 million preschool children and 19.6 million school-age children from 5 to 13 years of age who will have mothers in the labor force. These facts have strong implications for corporate America. Many companies which have developed forms of employer sponsored child care report it having a positive impact on areas such as staff recruitment and retention, absenteeism reduction, morale, public image and productivity (Burud et. al., 1984).

Given the problems highlighted by the young to older American support ratio projections, it is clear that new labor sources must be identified in order to meet the future demands for child and elder care services. This paper suggests that workers with developmental disabilities have been long overlooked as being a viable source of labor for this level of responsible position in our society (Meyer, 1988). With proper training, supervision and support services, people with developmental disabilities can move beyond the roles in the workforce that our society has traditionally placed them into.

It is a small percentage of people with disabilities who are in our workforce. Among disabled people, 41.5% of men and 24% of women are in the labor force compared to the figures for the non-disabled population which are 89% of the men and 64% of the women (U.S. Census, 1980). In most cases it is not the person's disability that prevents employment but, rather, discrimination (Dahl, 1982). This issue of discrimination makes a strong argument in favor of assuring a professional training program model in order to add credibility to the image of workers with disabilities.

A training program model which is affiliated with an institution of higher education serves to add the legitimacy needed to this undervalued population. The next section on the People in Partnerships program model will explain how to establish the linkage with higher education, funding sources, referral sources and field based training sites.

The People In Partnerships Program Model

Economists have predicted that Rhode Island's capacity for economic growth and development is extremely limited by the severe shortage of workers with adequate skills and that gap will increase during the 1990's. In response to this crisis Rhode Island designed Workforce 2000, a job training program established by the legislature in June, 1988 at the behest of Governor Edward D. DiPrete. The goal of Workforce 2000 is to institute creative and effective programs that will recruit and train thousands of new workers and upgrade skills of our present workforce. In addition workforce 2000 addressing the challenges of a rapidly changing technology which is stimulating a need for a more educated and skilled workforce and addressing opportunities for women, handicapped persons, minorities, immigrants, older workers and underutilized segments of the population. Workforce 2000 has an annual budget of $4 million dollars which comes from a payroll tax paid by employers. One innovative project funded since 1987 by Workforce 2000 is People In Partnerships.

"People In Partnerships" is an exciting statewide collaborative training venture between the Community college of Rhode Island (CCRI), the Department of Mental Health, Retardation and Hospitals (MHRH) and various businesses in Rhode Island to prepare people for interesting as well as realistic jobs within our workforce. The project is administered by the Rhode Island Association for Retarded Citizens.

Training programs have been developed in four distinct areas--elderly health care, day/child care, office receptionist and the building trades. Programs consist of 12-15 weeks of a combination of classroom work at the college and field placements in the selected industry. Eligible

participants are consumers from agencies primarily associated with the Divisions of Mental Health, Substance Abuse and Retardation and Developmental Disabilities. Other referrals are accepted if space permits. After successful completion of the 12-15 weeks of training, participants receive a Certificate of Achievement from CCRI to market themselves for jobs in Rhode Island's workforce.

Referral & Selection Process

Applicants are referred to the program by vocational rehabilitation counselors or case managers from various agencies, families, friends or through themselves. All applications are pre-screened by the Program Director. Criteria for selection includes:

- stable medication use
- stable residential living (6 months-no changes)
- personal recommendations from professionals
- genuine interest or experience working in the training area
- ability to successfully complete the requirements of the training

Individuals meeting the criteria participate in a personal interview with the Program Director and Job Coach to ascertain their interest in the program and to discuss specific training requirements. VR Counselors, case managers and families generally attend the interview with the applicant. The Job coach and Program Director select finalists after the interview to schedule an appointment for them to visit the work site of the training program of their choice. This gives the applicant a good sense of the program and the staff an opportunity to directly observe the applicant in the workplace. The Program Director makes the final decision on each applicant for participation in the training.

Program Content

Summary

All participants attend a two week orientation and social skills training program at CCRI from 9AM-2PM. All receive identification cards from the college and become familiarized with the facilities and services of the college. The training address the following areas: appropriate dress and work habits, values, career goal, learning styles, socialization skills, personal traits and strengths, assertiveness, individual expectations, self-evaluation, attitudes and interests and skills identification.

For many of the students the opportunity to participate in a college atmosphere is a significant and exciting opportunity. Many of the students with severe disabilities have been in segregated programs all of their lives. To be included in an integrated college setting is a tremendous boost to one's feelings of self-worth and pride. Students generally purchase a number of items from the bookstore, i.e., sweatshirts, pens, notepads, etc. to further identify themselves with the college.

Training materials for orientation include a number of films, videos, and other visual aids as well as specific written materials. After the two week orientation has been completed students are assigned to their respective job sites. The training then consists of 15 hours a week of on the job training and 7-8 hours a week of classroom instruction.

As mentioned earlier People In Partnerships offers individuals to participate in job training in four distinct areas: Building Trades, Office Receptionist, Elderly Care, and Day/Child Care. For purposes of this paper the latter two will be discussed.

Elderly Care

Rhode Island is somewhat different than the rest of the country in that we have a much higher percentage of citizens over the age of 65 than the national average. Presently we have over 100 nursing homes with 10,000 beds, over 30 shelter care facilities, over 50 elderly day care/senior citizen centers, and a number of Community Action Programs or United Way agencies that serve elderly persons. Rhode Island has 15% of our citizens that are over 65 years of age (over 150,000 people).

Many people who are over 65 are either retired or widowed. Their lives are generally quite lonely and sometimes depressing. Senior citizen centers offer people social and recreational

programs, opportunities to meet other people, to feel productive and be happy. Rhode Island has been developing more and more activity centers or elderly day care programs in the past few years to accommodate our increasing population of elderly residents. The current and projected labor market for jobs working with the elderly is indeed quite promising. Families are beginning to speak out for the critical need of in-home supports for families to care for their family member in the community verses a skilled nursing setting. The Rhode Island legislature is currently considering a number of bills relating to increased dollars for home health care and community programs as a cost effective alternative to the high costs of nursing homes.

People In Partnerships (PIP) designed a specific training program to address this labor shortage as well as to provide citizens with disabilities an opportunity to pursue a career which will offer both a rewarding job experience and career development. The general program features includes:

* two-three weeks of classroom instruction in issues related to aging, family support, ADL, nutrition and exercise, first aid, various medications, common diseases, community resources, positive attitudes, etc.
* ten weeks of on-the-job field placements at a Senior Day Activity Center and Sheltered Care Facility (if time permits and interest is expressed placements will also be available within a skilled nursing facility) working directly with elderly persons.

Nickerson Community Center in Providence presently collaborates with P.I.P. and other agencies on this project in both providing instruction to students and use of their facility for part of the field placements. The Center was established in 1883 and offers a variety of social services including day care, senior citizen programs, education, social casework, recreational programs and a food closet. The center was the first social service agency in Rhode Island to offer a Senior Citizen Center. Today, the Center has more than 800 senior citizen members who participate in activities such as day trips, art classes, recreational programs and health services. For many senior citizens, participating in this program is the cornerstone of their social life and provides the central ingredient for a well-balanced diet.

In addition, St. Joseph's Hospital shelter care facility--St. Joseph's Living Center--in Providence has also made a commitment to providing this project with programmatic instruction and to also act as a site for field placements of students. The center has been operational for close to two years and provides residential living for over 40 elderly people and 10 respite beds. The program assists people with ADL skills such as dressing, showering, exercise, arts and crafts, etc. and staff function as Living Center Companions to the residents.

Occupations that will be available to the graduates will include a variety and range of positions such as:

*Elderly Aides
*Homemaker Aides
*Living Center Companions
*Nursing Home Aides
*Activities Personnel
*Day Care Assistants

Day/Child Care

Rhode Island licenses over 100 day care centers and 90 private care homes for children birth to five years of age throughout the state. Workforce 2000 recently completed a study of close to 900 child care providers in the state. The major highlights of the study include these findings:

* The median starting salaries in day care last year were $7.03 an hour for teachers and $4.84 for assistants.
* Day-care providers who work in their homes made an average of $4.30 an hour, a nickel more than the minimum wage.
* Fast-food restaurants offer starting employees $5 to $5.50 an hour attracting many young people who find it easier to flip burgers than to get down on the floor with young children.
* Staff turnover at day-care centers was 32 percent last year; at afterschool programs for older children, it was 43 percent. On the other hand, turnover was just 17 percent at the federally financed Head Start preschool program, which pays wages similar

to privately run day-care centers but offers more benefits.

People In Partnerships designed a training program in day/child care again to address a statewide labor shortage need and to provide people with disabilities an opportunity to participate in a job training program that will offer them a practical experience and credentials (a certificate from Community College of Rhode Island) at the successful completion of the program.

Initially everyone receives an overview of child development competency standards by an instructor from CCRI as well as an orientation to day care standards using materials from the Child Development Associate National Credentialling Program also provided by CCRI.

Students are placed within day care centers throughout the state and are assisted by a Job Coach as well as the day care teacher in the classroom. Students initially observe the children and their interactions with their teachers and then become more involved with individualized work with a child or small group of children. Students work together with teachers to make it possible for children to develop special friendships as they eat, play, learn and encounter new worlds together. The focus of everyone is on the development of the children and each child is encouraged to grow at his/her own pace.

The afternoon classroom instruction covers a variety of child development material including presentations from consultants in a number of different areas such as:

* Early Childhood Health & Safety (a 9 hour training program resulting in each student receiving a certification card after successful completion of an exam.)
* Appropriate Behavior Management Techniques
* Developmental States of Early Childhood
* Creative Dramatics & Telling A Good Children's Story
* Abuse & Neglect of Children: What to Look for and What to Do
* Nutrition
* Healthy Family Relationships

Occupations graduates are eligible for at the completion of the program include:

*Child Care Aide
*Day Care Aide
*Bus Aide

Assessment

The Rhode Island Coalition of Consumer Self-Advocates (CCSA), an organization which includes people with mental illness, designed and coordinated a "Consumer Satisfaction Questionnaire" with all of the participants in the program to identify their initial expectations as well as their own personal feelings of self-worth. The survey is conducted again at the end of the program to analyze the impact of the program.

Three types of assessment have been developed: a weekly progress report for consumers, a weekly evaluation on job coaches, and a final assessment of competencies.

The weekly progress report for consumers is completed by the consumer first indicating their feelings on what they perceived they did well that week, any problem areas or training necessary and what they learned both in the classroom and at their field placement. The instructor from their field site also comments on what they did well and what they need additional assistance in. The job coach also comments on the same areas. The consumer and job coach go over the completed form and all sign off. (Note: This format has been helpful in both providing immediate feedback to consumers on how they are doing as well as assistance to us in tailoring classroom instruction in areas they need more training in.)

The weekly evaluation for job coaches was designed by the consumers themselves. Job coaches are rated on how well they understand each consumer's needs, how sensitive they are, their level of support, and their style of providing both reinforcement and constructive criticism to each consumer. The consumer explains to the job coach their comments and both sign the form. (NOTE: This form is important because the match between a consumer and job coach is one of the critical elements for assisting a consumer in becoming a successful employee. The comments are helpful in that they sensitize job coaches to areas they need to work on with consumers and areas they need to phase out of.)

The Final Assessment of Competencies is extremely important for each consumer. The assessment will indicate each person's strength's, areas needing additional training and an overall recommendation.

It is expected that the majority of the consumers will be ready to market themselves for jobs in Rhode Island's workforce. A small number of people will further their training through more advanced education or continued field placement experience.

Consumer Changes

Enhancing personal feelings of self-worth and a sense of achievement have been the single most important benefits of "People In Partnerships." Every single person has commented on how they feel that this program has given them hope for a better life with a meaningful career.

Initially the three population groups--substance abuse, mental health, developmental disabilities--naturally segregated themselves from one another. Each was somewhat unsure of the other two. As time goes on separations disappear--all people socialize and support one another. A number of people have become friends and socialize on the weekends.

People have definitely changed--they look and dress better, show more assertiveness, communicate more, show more initiative, appear more positive about themselves, learned new skills and feel proud of their accomplishments.

Another significant benefit has been the experience of the direct association with CCRI for each of the consumers. Attending classes at a college setting has been instrumental in increasing consumers' personal feelings about themselves. Everyone eats lunch in the cafeteria, uses the library, socializes with other students, attends certain presentations by outside speakers offered by the college and purchases various items from the bookstore, i.e., sweatshirts, bags, ashtrays, pencils, notepads etc. Feeling like you "fit in" with everyone else are new feelings for many of the people in the program. Everyone is proud to say they attend classes at CCRI.

Perhaps the program benefits can best be expressed by these comments from a few consumers:

"If I wasn't in this child care program, I'd probably be in a factory--a boring factory. Child care is for me. I love working with children either in a school or privately. I'd rather be doing this over anything."

"If I didn't go through this program I would be a nobody, a nothing, a waste. I would in be a mental institution. It made me feel it is reality. Before I came into this program I was lost in my own little fantasy world. I have to say this program gave me hope where there was none. Now I feel there is miracles. Because I feel like one from this Program."

"P.I.P. has given me a chance to redirect myself, to refocus my goals and objectives of life. Before I started in P.I.P. I was pretty much willing to either sit around doing a whole lot of nothing or work at a very menial job. Now I've got a chance to prove to myself that I can be a productive person."

Job Placement

Because different sites are utilized for each semester students are often in a good position to receive job offers from the site they are placed in. The Program Director and Job Coaches of P.I.P. do assist consumers in securing jobs--filling out applications, going on job interviews and working out transportation problems. Staff also work with agencies who initially made the referral of the individual to P.I.P. to assist each person in achieving their dream--to get a job in a meaningful area and to be compensated accordingly.

P.I.P. has graduated approximately 50 students since the training semesters began in August 1988. To date close to 40 students have secured jobs, three have pursued additional training or education and seven are presently looking for work.

Summary

Current data and projections regarding our aging population combined with the changing nature of our family structures and the role of women in our workforce, indicate that demands for child and elder care services will drastically increase in future years. The support ratio of younger to older Americans paints a dismal picture regarding who will be able to care for our senior citizens in need. Qualified licensed childcare services are already becoming a scarce commodity for working mothers.

It is exceedingly clear that our nation must begin to explore and develop untapped labor sources in order to meet these needs. The information regarding the People in Partnerships program model shows that with proper training, supervision and support services, people with disabilities can be professionally educated and placed into child and elder care service positions. This model may be able to be utilized with other untapped labor sources such as displaced homemakers, disenfranchised youth, welfare mothers, etc. The beauty of the model is that is not only meets the outstanding needs of our workforce for qualified personnel in child and elder are; it also moves people with disabilities out of the shadows of our society and into productive work which improves the quality of their lives beyond measure.

References

Burud, Sandra L., Aschbacher, Pamela R. & McCroskey, Jacquelyn, Employer-Supported Child Care, Auburn House Publishing Co., Dover, MA., 1984.

Dahl, P.R., Maximizing Vocational Opportunities for Handicapped Clients., Vocational Guidance Quarterly, 1982, 31, 43-52.

Meyer, Scott, Workers with Disabilities; The 21st Century's Untapped Source of Human Capital., The Nation's Workforce: Year 2000 Conference Proceedings, U. of Wisconsin-Stout, Menomonie, WI., 1988, 129-131.

Reiss, Ira L. & Lee, Gary R., Family Systemsin America, Holt, Rinehart & Winston, N.Y., 1988.

UNH News Service, Hard Questions in Health Care, Durham, NH., October 1988.

U.S. Senate Special Committee on Aging Report, Aging America: Trends and Projections, Washington, D.C., 1984.

THE MINNESOTA PLURALISM COUNCIL: A MODEL FOR SHARING

DAVID P. FRANZEN
MANAGER U S WEST

Abstract

The Minnesota Pluralism Council exists as two entities in the Minneapolis - St. Paul metropolitan area. The first of these is composed of a diverse group of U S WEST employees. This corporately sponsored group represents a variety of departmental organizations. It's primary objectives fall in the areas of awareness, training, special events, and recognition. The second entity is composed of representatives from 14 large business and governmental agencies in the Twin Cities area. It's objectives are similar to the U S WEST council but also include sharing of positive and negative factors which impact diversity/pluralism efforts.

The Mission Statement for the Minnesota Pluralism Council is: We, the Minnesota Pluralism Council, champion behavioral changes needed to achieve a pluralistic culture.

The Minnesota Pluralism Council's definition of "Pluralism" is: "PLURALISM" is a state of mind that embraces a common belief that all human diversities are to be valued, recognized, and appreciated. Individual desires and abilities are the sole consideration in defining access to opportunity. Caring behavior is rewarded and consideration for differences in individual needs is the norm.

The Minnesota Pluralism Council goals are:

1. Heighten employee awareness.
    1. Through formal education opportunities.
    2. Special Events months.
    3. Measurement.
    4. Impacting U S WEST's awareness programs.
2. Influence and impact pluralism across the 14 states of U S WEST, decide what stays in Minnesota, nurture two-way communication from other states and U S WEST councils.
    1. Examine our biases and prejudices.
    2. Representative from the MPC attend U S WEST Pluralism Council meetings.
    3. Definition of authority (calendar, funding, workshops).
    4. Assessing impact of regionalization.
    5. Appraisal issue.
3. To promote pluralism outside the company.
    1. Special programs.
    2. Influence Community Service teams on needs of pluralism.
4. Create effective council to champion our mission statement.
    1. Planning functions (including follow up on agenda).
    2. Active participation by all members.
    3. Timely monitor agenda.
    4. Restructure of committees.
    5. Educate ourselves.
    6. Networking/team building.
    7. Receive support from management at all levels.
5. Recognize and reward outstanding individuals for their contributions toward the corporate vision.
    1. CEO reception.
    2. Volunteer/employee of the month.
    3. Letter of recognition sent to the employee and supervisor.
    4. Define measurement program.

The membership of the U S WEST Pluralism Council shall consist of representatives from each establishment, U S WEST Communications and U S WEST, Inc., Support Groups, CWA, EEO/AA Consultant, and Pluralism Workshop Facilitators. The Council has the option of adding representatives as it deems necessary. Consideration should be made for a race/gender mix; craft and all levels of management.

The support groups within U S WEST include the following:

- EAGLE
- Minnesota Black Managers
- Pacific/Asian-American Network
- U S WEST SOMOS
- U S WEST Veterans
- U S WEST Women
- Voice of Many Feathers
- Facilitators Committed to Pluralism

EAGLE-Employee Association of Gays and Lesbians

EAGLE's non-political mission is "To strengthen the supportive environment within U S WEST so the unique issues of Gay and Lesbian employees are addressed and resolved while furthering the corporate goals and VISION." EAGLE aspires to achieve this goal through educational events, social activities and service to the community, while working within a corporate framework which, for the past five years, has protected and supported the rights of all employees, regardless of sexual orientation. EAGLE exists as an effort to establish Gay and Lesbian people as valuable and worthy members of the corporation and society and to create a working environment of mutual respect between ourselves and other members of the corporate community. We will seek opportunities for our members to improve their careers and their personal lives and to do so with pride in who they are.

Minnesota Black Managers

Minnesota Black Managers is an organization of black employees of U S WEST and its subsidiaries residing in Minnesota; including retired members of Minnesota Black Managers. The purpose of the organization is to:

- Act as a resource of information that is useful to all black employees in the achievement of their career goals. This includes the sharing of racial experiences as well as the sharing of Company policies and practices which affect our future.
- Serve the membership and community in both a professional and social capacity.
- Provide black high school seniors scholarship assistance after graduation in an effort to further their education at an institution of higher learning.

SOMOS

SOMOS translates, "We are."

We are a resource organization for the employees of all of U S WEST Communications, Inc. and its subsidiaries.

SOMOS had its beginnings in 1979 when a small group of Hispanic managers met to determine how they could develop the leadership and managerial skills which they would need to meet their own career goals as well as contribute more effectively to the achievement of U S WEST's corporate goals.

The purpose of SOMOS is twofold: (1) to promote our membership's professional development and (2) to seek the development of employment opportunities for SOMOS members throughout U S WEST Communications and it subsidiaries.

U S WEST Women

"Our purpose is to provide career assistance and developmental opportunities for all women, to achieve fair and equal representation of all women in every category and level of the U S WEST family, and in doing so, to enhance the value of U S WEST and its subsidiaries."

Benefits of membership include:

- Network lunches
- Membership meetings
- Brown bag seminars
- Community service
- Committees
- The VOICE

Voice of Many Feathers

Voice of Many Feathers is an American Indian support group dedicated to building an understanding between cultures, supporting each other's efforts to continue education and advancement within the business world, assisting other Indians in education and career development and representing American Indian employee concerns. Voice of Many Feathers was formed out of a need to help bridge the gap between the corporate world and the Indian community.

In 1988 the concept of a multi-company pluralism council was explored. As pluralism/diversity issues increasingly received mainstream attention, the support for this idea grew.

The Minnesota Pluralism Council is composed of 10 large businesses, 2 Governmental agencies and 2 not for profit entities. The following issues make up the agenda of the somewhat loosely organized council.

- Glass ceiling for women - it is hard to break into senior management.
- People of color are required at all levels in order for cultural diversity to be possible.
- Retention is a significant issue. Determining why people are voluntarily leaving will be a major challenge.
  - -- Selective retention is an issue because of the impact of losing key minorities and/or women when large investments have been made.
- Assuring that management is prepared to manage diversity. The movement of women within the organization is less of a problem than minorities. Most managers feel that by moving women within the business they satisfy all other affirmative action/EEO requirements.

- Diversity encompasses too many issues to be effective. There are a multitude of differences to be considered; i.e., race, sex, age, religion, gays, straights, Minnesotans, non-Minnesotans, etc.
- Formal EEO compliance vs. pluralism -- a requirement vs. the right thing to do.
- Bridging awareness training into strategic actions. Management feels they have received enough information on demographics; they now want to translate that information into specific actions.
- Management/employee behavior change is an issue. How do we get there?
- How did this thing called diversity evolve? Some companies are at ground zero and need more specific examples to begin the process.
- Training for employees in general is required, not just management training. The impact is broader for the entire employee population because of the potential employee relations issues.
  -- Employees are concerned and confused regarding how diversity might impact them. The general question is, "Is this something that will pass in time like other affirmative action/EEO programs?"
  -- Create levels of understanding throughout the population base.
- Support groups/networks concern regarding the diversity issue. There is a fear that diversity may be taking away from existing activities. On the other hand, other formal support groups have responded favorably and there doesn't appear to be a conflict.
- Management succession planning, both formal and informal, definitely impacts diversity especially if segments of the population are not included.
- Board of Directors - bottom-line orientation vs. pluralism and its long-term impact.
  -- A publication titled "Black Book International" identifies talent nationwide for Board of Directors consideration.
- Getting people to see that it is not a social issue but a business issue.
- Missed opportunities because of the lack of diversity; standing committees, management committees, executive committees, etc. - all should be reviewed for possible inclusion.
- Lack of human resources/budget to do the work that is required.
- Mentor program for all employees, which is voluntary, has had a positive impact. Division president has the responsibility for the success of the program.
- Human Resources personnel is an issue. The commitment to pluralism seems to be questionable. The key to any successful endeavor as relates to diversity requires Human Resources commitment and support.
- Pluralism Council direction - A question was raised whether or not the Council was headed in the right direction. It was decided that the meetings are meaningful and beneficial, and the exchange of ideas and dialogue satisfies what the Council should be about. The general consensus was that we should continue because we are a valuable resource organization to each other.

CONSTRUCTION INDUSTRY PRODUCTIVITY AND WORKFORCE QUALITY OF LIFE: A THEORETICAL RESEARCH MODEL

by Gilbert Browning
Texas A&M University

Abstract

The competetive position of the U.S. construction industry and its productivity have declined, according to the Business Roundtable's comprehensive study of construction. One reported cause is labor productivity. Few empirical studies of labor productivity based upon behaviorial constructs have been done in construction. A theoretical model suggesting a framework for such investigation is proposed. The model presupposes industry uniqueness as a constraint to the adaptation of findings in other industries. Work outcomes are conceptualized as resulting from states of worker *competence* and *levels of effort*. Worker *quality of life* is conceived as an outcome which covaries with *work output* as a function of *competence* and *effort*. Worker recruitment, training, performance evaluation, and membership in an employee stock ownership plan are suggested as treatment elements which shape the power of the variables, *competence* and *effort*. Difficulty with construction industry interpretations of the term, *productivity*, are addressed.

Construction is the Nation's largest private sector employer. It is a seminal industry that affects the lives of everyone. In recent years the industry's productivity has been questioned. The Business Roundtable's comprehensive study of construction, the *Construction Industry Cost-Effectiveness Project* (CICEP), attempted to pinpoint the extent of the productivity decline and to single out causes. One major cause found was a less productive labor force (Business Roundtable, 1987; 1982a; 1982b).

To comprehend construction's labor force and the relationship which exists between management and labor, it is necessary that the industry's diverse nature be placed in perspective. The CICEP description of the industry is an appropriate characterization:

> . . .(construction) has been a $300 billion a year activity involving close to 1 million contractors, over 70 national contractor organizations, more than 10,000 local and national labor organizations, about 5 million workers, and more customers than anybody counts. Amid such splintering as these numbers assure, it is arguably more amazing that the industry makes the progress that it does rather than that progress, or at least change, comes with glacial speed. . . .despite the sophistication of giantcorporate clients for construction whose annual bill runs to billions of dollars, too much of the industry remains tethered to the past, partly by inertia and partly by historic divisions -- management vs. labor, union vs. open shop, business vs. government, sometimes one union vs. another or one contractor association vs. another. . . . the bottom line of this adverserial dance is a constant state of confrontation (Business Roundtable, 1986, p. 12).

ASSUMPTIONS AND LIMITATIONS

The model proposed here presupposes that improved productivity for employer companies and enhanced quality of life for employees is largely dependent upon the industry's adoption of management practices developed and proven elsewhere. That the industry has been very slow to recognize such practices is well established (Business Roundtable,1987).

The model proposes a structure for investigating the effects of hypothesized causal agents on worker productivity and worker *Quality of Life* (QL). There is assumption that, without evidence, industry management practices are not likely to change at a rate commensurate with changes taking place in other major sectors. The assumption is supported by a literature which provides a bleak picture of management change in construction, except where the adoption of technology is concerned (Browning, 1988). Additionally, the model offers no consideration for the special difficulties that likely would arise where investigation would involve a unionized workforce. It is assumed that the power of the hypothesized causal agents is dependent upon parent

companies being the dispensers of the rewards of work, and the managerial *agents* which determine work structure and assignment. Thus, with few exceptions, the model's application is intended for the study of non-union work environments. Application in unionized work settings would require significant concessions by unions to permit the hypothesized causal agents to operate full force.

PRODUCTIVITY: A CONCEPTUALIZATION

What *productivity* means is critical to an assesment of its hypothesized causes. In construction, this all important term has come to mean different things to different people (Business Roundtable, 1982b). Four perspectives for measuring productivity are described below. Two of these are measures which apply to the model. The other two are presented to provide context and meaning for those which do apply.

Productivity is the primary concern of investors, owners, and builders, those who risk the capital and effort required to build society's desired structures. To these groups, productivity is largely a matter of *cost-effectiveness*, which (like *productivity*) is a term with more than one meaning -- owners want products built to standards, as cheaply and quickly as possible, while builders want to make a profit.

Traditionally, labor productivity is assessed in terms of input-output ratios (Ballou, 1985; Business Roundtable, 1982b; McNally & Havers, 1967; Fabricant, 1962). Productivity (or cost-effectiveness) can be achieved when output is increased while input is held constant; when input is reduced without a proportionate decline in output; or when input is increased with a proportional increase in *rate* of output (Browning, 1988).

Input-output measurement focuses on *efficiency* and accounts for the use of *productivity* interchangeably with *profitability* or *cost-effectiveness,* a practice which has become somewhat customary in the industry (Browning, 1988). When most jobs are estimated, anticipated profit is figured as a percentage of total project cost. Similarly, during the building process itself, profit is viewed as an increasing or diminishing percentage of cost, depending on how *cost-effectively* the process is implemented. Thus, *cost-effective* operations are a major determinant of productivity, or profit. However, in this context *cost-effectiveness* is less critical to society in general, or to workers themselves. Society does not fail on the basis of production costs alone and, in the short term, workers are almost certain to get paid even when profitability (or cost-effectiveness) is low or non-extant.

Thus, input-output measurement serves to determine *one* aspect of productivity -- *cost-effectiveness,* but it offers little to account for productivity's broader context meanings, such as in terms of number of jobs produced, or *Quality of Life* (QL) for workers (Browning, 1988). To get at the complex issues inherent in these other meanings, while maintaining perspective of the importance of *cost-effectiveness* and thus, *profitability*, requires acknowledgement that an order of consideration for the various meanings exists. This order can be expressed as a hierarchy of considerations which logically follow one from another.

PERSPECTIVE 1: Productivity as a Measure of *How Well the Building Needs of Society Are Met*

The first measure of productivity (or its increase) must assess society's needs for the products of construction. These have to do with *quality* and *volume*. The measurement standard derives from the questions, "What kinds (of products)?", "How much ?", "How many?", and, "How good?" Cost is vital, but it is secondary issue, for without need cost is irrelevant. In this context, *productivity* refers to housing availability, transportation infrastructure, office space, recreational facilities, and so on.

PERSPECTIVE 2: Productivity as a Measure of *Profit*

The second productivity measure is *profit earned.* Here, the chief concern for the industry is *cost-effectiveness* and the test involves determining *affordability* -- The critical question is, "Can the needs of society be met in a cost-effective manner?" Conceptualized as a variant of cost-effectiveness, profit is earned on the basis of how well a company executes the building process *after* the work has been obtained by bid or through negotiation. Activity required to execute the building process is called *project management* and includes development of a viable project plan, purchase and allocation of materials and equipment, and selection, training, utilization, and evaluation of a workforce, among other vital aspects (Stuckenbruck, 1985).

Implicit in the question of affordability, then, is *profit to be earned.* Thus, *cost-effectiveness* is crucial in another context -- the survivability of the industry itself (in capitalistic economies businesses do not survive without earning profit). Therefore, the question here really asks, "Can the construction industry operate at a level of profitability sufficient to sustain itself while it does the work required to meet society's building needs?" In this context, then, *profit* (or *cost effectiveness*) is one of the two outcome measures the model is concerned with

The actual measurement of *profit* or *cost-effectiveness* for research purposes is envisioned to be largely a matter of translating data from financial and job cost records of companies which would participate in specific investigations. As an incentive to companies, treatment elements such as those suggested in the *training* component (described elsewhere) would be offered.

PERSPECTIVE 3: Productivity as a Measure of *Number and Kinds of Jobs Created*

The third measure of productivity relates to work opportunities for citizens. In U.S. society, the expectation is that profitable ventures, which depend upon human resources, must provide work opportunities for the citizenry. To a great extent, this expectation is satisfied by what is revealed by answers to the first two questions.

Necessarily, work opportunities are defined at the time project plans are developed. As this takes place, workforce requirements are defined. Critical to the process is the relationship between labor costs and other project costs. The productivity question, then, is, "How many and what kinds of jobs does (or should) construction provide while it administers to society's building needs and while it earns a profit?" This measure is indirectly related to the second outcome variable in the model, worker *quality of life*.

PERSPECTIVE 4: Productivity as a measure of *Quality of Life* for Workers

The *order* of consideration suggested thus far reflects what is valued in capitalistic societies and accounts for consistent use of the first three measures as strong indicators of society's general state of prosperity (for example, a bellwether index of economic "health" over a given time period is number of housing starts) Obviously, such a measure is also an indicator of industry viability. There is, however, another measure of productivity which should be given significant weight. That measure is worker *Quality of Life*.

Unfortunately, as a *direct* index of construction productivity, QL is not used with the frequency or fervor other indices are to characterize construction's needs or its accomplishments. Two reasons, chiefly, are apparent: First, QL is a difficult concept to deal with -- certain aspects of QL are intangible and, therefore, are not easily measured or explained; hence, the *intangibles* are likely to be valued differentially (for example, compared with pay, which is highly valued by virtually all wage earners, value ascribed to,"working in a pleasant environment," or "being assigned, "challenging work tasks," is likely to vary from individual to individual). Second, assessing the value of QL requires that comparisons be made with other forms of work, but such comparisons run the risk of obscuring factors which might be the true causal agents of the differences -- factors operative in one form of work, but not another, are likely determinants of how worker's perceive that job.

With the exception of wage comparisons, construction industry leaders have not been disposed to promote QL as a reason for choosing or sticking with construction as an occupation (wages are good in construction). The problem is that reward contingencies other than pay -- those typical of comparable occupations -- are not usually available to construction workers. It is as though the construction worker must "trade off" the advantage of receiving more pay for the disadvantage of not getting benefits. It is a tradeoff many people seem willing to accept, and perhaps more importantly, to welcome, especially when they come from minority backgrounds or families which have struggled economically.

To sum up, construction workers generally do not enjoy a *secure job tenure over time with a given employer*, or *retirement considerations* like those of their counterparts in other industries (in the latter case, union membership constitutes an exception).

As a measure of productivity, then, the question posed in *Perspective 3* changes with the addition of a *quality* standard: The question now asks, "How many and what kinds of jobs *that produce an acceptable QL* should construction provide?" This is the second outcome measure in the model.

WORKER QUALITY OF LIFE: A CONCEPTUALIZATION

For most individuals, achieving a satisfactory QL is an end in itself. How one perceives one's own QL is clearly an individual matter. One person may view acquisition of wealth as virtually the only means of achieving satisfactory QL. Another may feel differently. For all, however, accepting the *adequacy* of one's QL certainly depends upon the perception that one's needs are being met.

This conceptualization follows Maslovian (1954) theory, which holds that individuals are motivitated by their desire to satisfy needs. Implicit in this view is the existence of a *need hierarchy* where satisfaction of basic needs preempts desire to satisfy "higher order" needs, and where, in the context of work (following Herzberg, 1966), various potential satisfiers exist in the work environment. These proceed from satisfiers with potential to meet basic needs all the way up the hierarchial ladder to those with potential to satisfy concerns which are largely esoteric.

Since *work* is a means by which needs are satisfied, most jobs are expected to provide certain direct rewards associated with QL. In general, these direct rewards -- adequate pay, retirement plans, health and accident insurance, and so on -- are quite tangible and are a primary source for satisfying basic needs. In Herzberg's conceptualization, these tangible outcomes of work are the primary sources of the *necessary but not sufficient* conditions which must be in evidence to ensure the *chance* that workers might be motivated to optimal efffort. But, they *do not assure* that result. To increase the probability of high level worker performance, work must provide the means by which higher order needs are satisfied.

Jobs provide a setting where individuals develop and refine certain knowledge, attitudes and habits which constitute a good portion of the basis for higher order need satisfaction. The rewards that satisfy here extend beyond pay and benefits. It is, for example, largely through one's work that one earns the respect of significant others. This is a powerful ingredient of self-respect, which is assumed to be significantly related to the satisfaction one feels about life in general. Positive self-image, no doubt, is a state of mind which strongly influences QL, and likely, is very much responsible for motivating an individual to strive for respected position and stature within community, that in itself, being yet another element in satisfactory QL.

In U.S. Society, attributes and behaviors such as "self-sufficiency" and "setting good example for others" are highly valued. How one goes about one's work assignment is a strong indicator of these esteemed attributes and behaviors. Where one enjoys good reputation, that end become a means for sustaining and improving a preferred state of QL. The effort to do so generates what could be termed a *cycle of reinforcement*, where pleasure and satisfaction derived from esteem become the motivational *press* that stimulates yet more

productive effort, which in its turn, generates yet more respect. Treatment elements (defined below) which would constitute the activities that would actually take place with the model's implementation are envisioned as having the potential to generate this *reinforcement cycle*. The importance of this is crucial because evidence of the *cycle's* presence confirms the power of the variables (job) *competence* and *effort*.

VARIABLES AND TREATMENTS: SUGGESTED MODEL ELEMENTS

The model presumes that any given worker's potential to do his job well is dependent upon his or her *knowledge* and *skill* levels and *job habits*, on one hand, and his or her *motivation* to work on the other. *Knowledge skill* and *job habits*, collectively, constitute *job competence*. *Motivation* to do work is conceived as the factor which accounts for *effort*. *Competence* and *effort* constitute the variables which account for worker productivity. By increasing *competence* or *effort* or both, productivity can be increased and QL can be enhanced. Under this reasoning, the outcome measures, *productivity* (or *cost-effectiveness* or *profit*) and *Quality of Life* are variants of worker *competence* and *effort* [Figure 1].

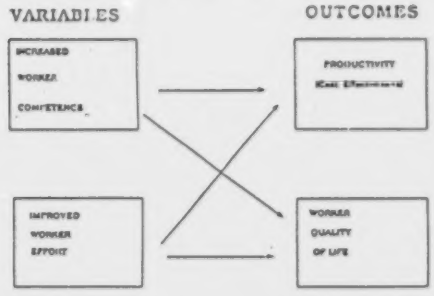


Figure 1. Outcome Measures

In the model, *competence* and *effort* are manipulated by the variables, *recruitment, training, performance evaluation,* and *ESOP* membership. The power of these variables, either alone or in combination, is assumed to derive from their respective treatment elements, identified in Figure 2.

Selection of each treatment element is justified on the basis of one or more of three reasons: 1) there is evidence that the element has been used to improve worker competence, or to induce heightened states of motivation in work environments other than construction; 2) the element, *prima facie*, is a powerful teaching or training medium, or a means by which individuals can be motivated; 3) there is evidence that, in construction, the element is poorly defined or has been inadequately tried.

A short description of the suggested component variables and treatment elements, with abbreviated discussion of the justification for their inclusion follows:

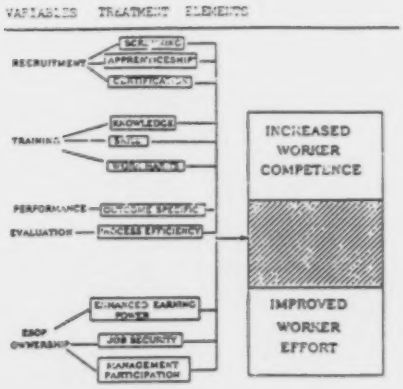


Figure 2. Treatments

Recruitment: In construction, the prevailing mode of hiring craftsmen and workers has followed no pattern. Characteristically, on non-union jobs, companies hire persons who have worked there before, when they can locate them. Otherwise, they resort to hiring on the basis of word of mouth recommendation and by "pick-up." Typically, little or no screening is done (Business Roundtable, *1983*). Justification of *recruitment* as a model element rests with the fact that industries, other than construction, have experienced *successes* with recruiting. Recruiting is seen as a means of ensuring minimal levels of competence among new hires.

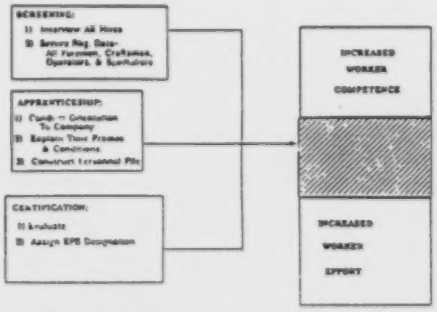


Figure 3. Recruitment

Training: Inclusion of the element, *training*, is justified *prima facie*. However, it should be noted that training programs in construction have been a significant concern for leaders. Existing programs tend to be limited and there appears to be some agreement that results have fallen short of expectations (Browning, 1985). A major concern is the replacement of skilled people, whose numbers continue to decline (National Alliance for Busines, *1986*). Figure 4 illustrates the suggested treatment elements in *Training*.

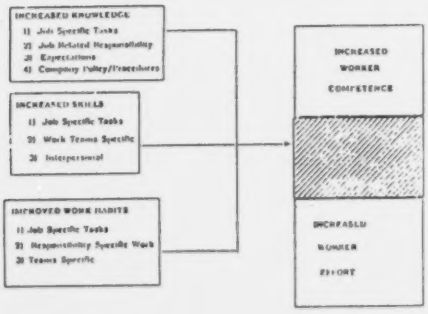


Figure 4. Training

Performance Evaluation: The evaluation of worker performance in construction is largely a subjective matter, with supervisors often being forced to pass judgment on the basis of short term observation alone and usually by word of mouth (Hensey, 1980). Advantages which might be gained from objective or comprehensive employee evaluations have received little consideration from industry leaders (Browning, 1985). Suggested elements which constitute *performance evaluation* are illustrated in Figure 5.

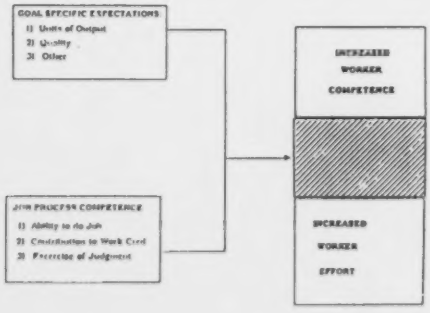


Figure 5. Performance Evaluation

Employee Stock Ownership Plans (ESOP's): In construction, ESOP's have been tried with limited success, probably because the management philosophy and practices necessary for bringing ESOP's to their potential as motivational agents have been neglected, a circumstance not unique to construction (Scarborough & Zimmerman, 1988). For intrepreneurs, ESOP's are attractive primarily because of their tax advantage and their promise of increased productivity, the latter being an expectation based on the belief that ownership is an inherent motivator.

In the case of increased motivation deriving from ESOP membership, expectations have not materialized as expected. In separate studies, Rosen, Klein and Young (1986) and Qaurrey (1986), found *extent of worker involvement in decisions* to be the factor which made the greatest difference among ESOP workers These findings generally support the contention held by many that the shortcomings of ESOP's are the result of management failures to institute practices which *confirm* worker-members as legitimate, full-fledged "partners" in their respective organizations.

Indirectly, other reported uses of the ESOP provide further suggestion that empolyee participation has not been a priority. Other reported uses include use as employee benefit plans (Ludwig, 1977), as a market for departing owners (Lee, 1985), and to "save" floundering businesses (Rosen, *et.al.*, 1986). It would appear that the use of ESOP's for their potential as motivation builders has not been a matter of importance for intrepreneurs.

In the model, elements which are suggested as treatment components of the *ESOP* variable are intended to ensure that ESOP potential as a motivation builder is given a fair test. Figure 6 illustrates suggested elements which might constitute the *ESOP* treatment.

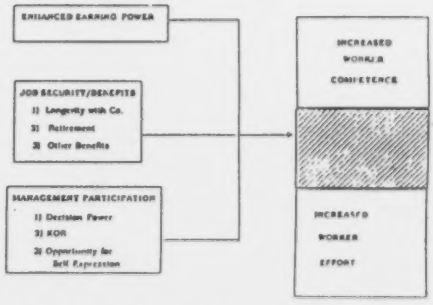


Figure 6. ESOP Ownership

BEST COPY AVAILABLE

A SUMMARY NOTATION

The model put forth here is the partial result of a funded interdisciplinary effort to address obvious needs pertinent to building a quality workforce in the construction industry. It must be emphasized that the model provides a suggested framework only. Its intent is to stimulate further effort. A major constraint which should be anticipated by those interested in such investigation is the reticence of construction leaders to participate. The efforts of the interdiciplinary team were hampered considerably by companies which became disinterested after making initial commitments to participation in one or more of the separate investigations undertaken by the team over a two year span. This word of caution is made all the more important by the fact that the efforts referred to were, in all instances but one, surveys (intended to gather preliminary findings with a view toward building a research model). Where investigators might want to pursue more rigorous forms of inquiry, perhaps like those suggested here, they should anticipate difficulty finding cooperative companies.

REFERENCES

Ballou, L.D. (1985, February 11). Productivity improvement. The Military Engineer, pp. 484-487.

Browning, G.B. (1988). Construction productivity: Five years after CICEP. *American Professional Constructor. 12* (1), 2-7.

Browning, G.B. (1985). Management systems designed to increase worker productivity. *American Professional Constructor. 8* (11), 12-21.

Business Roundtable (1986). Application of modern management systems, Report A-6. *Business Roundtable Construction Industry Cost Effectiveness Project.* New York: The Business Roundtable.

Business Roundtable (1987). Construction labor motivation, Report A-2. *Business Roundtable Construction Industry Cost Effectiveness Project.* New York: The Business Roundtable.

Business Roundtable (1982a). Local labor practices, Report C-5. *Construction Industry Cost Effectiveness Project.* New York: The Business Roundtable.(1982b).

Business Roundtable (1982b). Measuring productivity in construction. *Construction Industry Cost Effectiveness Project*, Report A-1. New York: The Business Roundtable.

Business Roundtable. (1983) More construction for the money, Summary Report. *Construction Industry Cost Effectiveness Project.* New York: The Business Roundtable.

Fabricant, S.(1962). Which productivity? Perspective on a current question. *Monthly Labor Review.* Washington: U.S. Department of Labor, 609-613.

Hensey, M. (1980). Improving the employee appraisal process. *Engineering Issues,* (American Society of Civil Engineers) *106*, 181-187.

Herzberg, F. (1966). *Work and the Nature of Man.* Cleveland: World Publishing.

Ludwig, R.L. (1977, Spring)). Conversion of existing plans to stock ownership plans. *American University Law Review. 26*, 632-656.

McNally H. & Havers, J.A. (1967). Labor productivity in the construction industry. *Journal of the Construction Division* (American Society of Civil Engineers). *93* (CO2), 1-11.

Maslow, A.H. (1954). Motivation and Personality. New York: Harper.

National Alliance of Business (1986). *Employment Policies: Looking to the Year 2000.* Washington: National Alliance of Business

Qaurrey, M. (1986). *Employee Ownership and Corporate Performance.* Oakland, CA: National Center for Employee Ownership.

Rosen, C. M., Klein, K.J,.& Young, K.M. (1986). *Employee Ownership in America: The Equity Solution.* Toronto: Lexington Books.

Scarborough, N.M. & Zimmerman, T.W. (1988, January-March). The entrepreneur's guide to ESOP's. *Business.* p. 31.

Stuckenbruck, L.C. (1985). *The Implementation of Project Managementt.* Reading, MA: Addison-Wesley.

OLDER WORKER "RECYCLING": ONE KEY TO A QUALITY WORKFORCE

DR. NOREEN HALE

Abstract

Mini-lecture, visuals, and group discussion will describe: (1) corporate retraining programs for older employees, including the most appropriate teaching methods; (2) unique characteristics of mature employees as adult learners; and (3) company re-careering activities for retirees and pre-retirees.

Changing demographics suggest the evolution of a multicultural, multigenerational workforce. Creative and informed management of such diversity requires understanding of several segments of the labor pool, one of which is older workers. The training and education of this group as well as commitment to their career development are deemed by this author to be both advisible and desirable as the population ages.

Demographic and sociological projections portend a future with 38 million Americans over age 65, a decrease in the percentage of available 16-24 year-olds from 30% in 1985 to 16% by 2000, high potential costs to companies for literacy education for immigrants who might assume entry-level jobs, and escalating costs in a retirement system that will place a disproportionate burden on fewer younger workers. These predictions, coupled with the fact that recent surveys of older workers indicate a desire to maintain even part-time employment for self-fulfillment and/or economic need, support the case for reinvesting in this talent bank of mature employees and retirees through training, education, and recareering efforts. This may be especially crucial for older women whose numbers will greatly increase, while, at the same time, they are more likely than men to be poor; i.e., women are more often without adequate Social Security benefits as a result of having low income jobs or discontinuity in their work history due to raising a family.

This workshop touches on these demographic trends, then moves on to consider the following topics: why employers are beginning to show interest in hiring or retaining older workers; types of alternative work options currently available to them and vanguard companies implementing these options; retrain-

ing of older workers with an emphasis on what effective strategies companies are using; and, finally, suggested teaching methods for re-careering programs for mature adults. Corporations are coming to recognize that reinvesting in older workers can have a positive bottom-line outcome in terms of reduced turnover, less absenteeism, and reduced frequency of tardiness as well as maintenance of desired productivity levels. There are also less tangible but acknowledged "payoffs" such as Western Savings and Loan of Arizona found when it hired older persons for teller and clerical positions: customers who were retirees seemed to feel more comfortable relating to persons close to their own age. Moreover, it fosters a corporate image of caring about people in the community; therefore, doing smart business generates a public relations gold mine.

There are a variety of alternative work options that firms are currently utilizing for older workers and other segments of their employees, especially young women who wish both to stay employed and also to raise a family. In addition to job banks, e.g. one administered by Travelers Insurance; temp pools; or permanent part-time arrangements, such as the programs of McDonalds Corporation and other quick service giants, companies may provide job sharing wherein two part-time persons share one full-time job. Some companies such as Corning Glass and Control Data expend the time and effort to engage in job redesign, using, for example, flextime or flexplace arrangements to make more effective use of employees. Transition to retirement is facilitated through educational programming and tuition reimbursement, phased retirement, and/or paid leave to learn a new career in the not-for-profit sector. Among the companies known for such efforts are Polaroid, Varian, and Wells Fargo.

More and more corporations are retraining older employees. Examples of such firms are Grumman Corporation, AT & T, General Electric, Crouse-Hinds, and Pitney-Bowes. Most training is on-the-job and hands-on practice facilitated by someone experienced with the equipment or process to be taught. Among the "gerogogical" principles which may be incorporated into such learning are the establishment of a non-threatening, supportive psychological climate; adaptation to vision and hearing loss, such as full spectrum lighting and speaking in a clear, well-modulated voice; making sure the physical setting is comfortable; providing the chance for periodic moving around to avoid stiffness; allowing the learner, whenever possible, to go at her own pace; breaking the task into short units of learning to allow for mastery, and encouraging reinforcement opportunity for immediate and regular feedback of a constructive nature; using mnemonic (memory) techniques to help older students organize what is learned in such a way that it can easily be recalled when needed; repetition of key points and periodic summarization; involvement in their own learning by asking for students' input using a discovery approach and building on their past experience and knowledge when teaching older workers something new.

"Older Worker 'Recycling'" utilizes and applies to retiree retraining the concept of recareering. Robert Krannich in his book, Re-careering in Turbulent Times (1983), describes this as "the process of repeatedly acquiring marketable skills and changing careers in response to a turbulent job market." It amends the 1970s approach to job searching which consisted of identifying one's personal selling points and marketing oneself with the concepts of second and third careers, ongoing retraining, and better utilization of communication networks.

The workshop offers a philosophically positive model of recareering programming in counterpoint to various theoretical models which hypothesize a loss-focused, past-centered, and, in general, negative cast on later life.

It is the position of this author that the retiree has a constructive future in terms of recareering should he or she choose that alternative. Participants in the model explore career change at any stage in life as part of the process of life planning; it takes them through:

1. How I Got Here: Participants look at past successes and skills amassed through one of these two mechanisms and share them in dyads: a. career success milestones and datelines or b. functional, transferable skills inventory.

2. A perspective on Where I Am Now would involve session attendees in assessment "a" and either "b" or "c" following: a. what is the meaning/satisfaction work holds for me at this point in time; b. personal qualities/strengths listing; c. feelings, thoughts inventory about opportunities available in later life.

3. What I Want To Do, Be directs participants to construct their ideal job. This will be accomplished through their completion of a visual which will help them piece together aspects of their job (e.g., the kinds of people one would prefer to work with and for; kinds of activities one would perform, etc.).

4. How to Become What I Want To Be consists of two sections: First, using the information in 1, 2 and 3 above, participants will look at what gaps in their learning they need to fill in order to reach the goal identified in number 3; then, they complete an action plan set up on 1 week, 1 month, and 6 month intervals and based on goal-setting to attain the kind of job desired. This segment also takes up networking and traditional and non-traditional job search strategies.

Retraining, recareering, and other opportunities made available to the elderly make a contribution to society, to the individual corporation and to the individual older worker. A benefit to society-at-large is that it does not lose a pool of present and future talent; "recycling" them produces a quality-conscious, productive and motivated human resource. Companies learn, as have the firms described earlier, that mature employees are an asset, not a drain. Finally, broadening options for older workers is beneficial to the seniors themselves. Studies show that older men, in particular, experience an "existential vacuum" apparently due to role loss and reduced active participation; at the same time, women demonstrate a need to exercise influence and to derive meaning from current not past attainments. Reinvesting in the older worker can be a means of addressing these issues for both sexes in later life.

OLDER WORKERS IN A HIGH-TECH WORKPLACE

GLORIA BITTNER HAY
UNIVERSITY OF WISCONSIN-MADISON

ABSTRACT

National population projections tell employers to expect a significant decrease in the numbers of young job applicants throughout the decade of the 1990s. During the same period the numbers of older workers and retirees will increase. The demographic trends differ somewhat from one geographical area to another, as do the skill levels of the potential new members of the work force. Industry needs also vary, though all employers say they require verbal and mathematical competencies that many young applicants cannot offer. Following a decade in which early retirement options were made available and encouraged, employers in the 90s are likely to ask older employees to stay on and master new skills. In areas with few acceptable youth applicants, retirees are already being asked to return on a flexible schedule. In a culture that has previously placed a high value on youth, many employers still have reservations about the ability of older workers to master new skills. Where new skilled workers are not available, employers have already begun to hire their own retirees and other older workers, giving them new training and self-selected schedules. They report remarkable results. This paper summarizes interview data from human resources personnel who hire and retrain older workers. Their successes verify lifelong learning research findings about learning potential across the total life span.

Introduction

If you are drowning in data about tomorrow's dwindling workforce, take heart. The statistics you read are to be looked at as only partial information, calling for what Amitai Etzioni (1989) calls "humble decision making."

This paper recommends that each reader use Etzioni's mixed scanning, in this instance the consideration of a broad range of information about demography and the work force, together with a focused subset of information about your own area's needs, projections, and willingness to work with non-traditional employees.

How many employers would like to hire new workers who show up when they're expected, have skills in English and mathematics, need no health insurance coverage or retirement benefits, and are willing to work whenever there is a peak demand or special project? This paragon is the older worker--possibly your own retiree.

Demographics

Figures abound, and no matter whose projections you use, the projections tell a story of fewer entry-level young people and an increasing abundance of older Americans.

Table I U.S. Population by Age (Thousands)

	18-24	45-64	65+
1987	27,336	45,303	29,835
1990*	26,140	46,851	31,559
1995*	24,281	52,622	33,764
2000*	25,231	61,381	34,882

* projected

From Current Population Reports, Journal of the American Statistical Association, Vol. 71, No. 355.

The figures given for national population trends are not suitable, in many instances, for specific local work force decisions. Aggregate figures do not necessarily give an accurate representation of local population facts and local employment needs. The aggregate figures may or may not describe the situation educators and employers face in a specific geographical area. For example, five states (California, New York, Texas, Florida and Illinois) fall outside the norms in regard to the age categories of their populace. The same five states also contribute an inordinate number of entry-level youth lacking employability skills. At the same time, several midwest states produce high school students who score well in achievement tests and who need minimal on-the-job training to succeed in business and industry.

Population trends in Wisconsin follow the pattern of the U. S. aggregate projections with one exception: the number of Wisconsin residents in the 65-80 category is expected to decrease from 1995 to 2000.

Table II Wisconsin Population by Age (Thousands)

	15-24	45-64	65+
1985	819	651	471
1990*	695	888	496
1995*	659	976	502
2000*	686	1140	488

* projected

From Wisconsin Population Projections 1980-2020, Wisconsin Department of Administration, 1988

Individuals nationwide who are over 65 in the 1990s have attained an education level far exceeding that of previous generations. Beginning with the GI Bill after World War II, a substantially higher percentage of men and women attended college and followed professional careers. As retirees, these fortunate thousands possess broader backgrounds and higher expectations for extended productivity. Their expectations are not vain. Better understanding of lifelong learning potential combined with advances in health care make extended usefulness a reality for many retirees.

Currently the U. S. has an exceptionally large pool of younger retirees. Corporate downsizing during the 1980s offered employees the option of early retirement. At many companies far more people took advantage of this offer than management expected. Economist Jane Bryant Quinn (1989) says "Today older workers are still paid to leave. Tomorrow they'll be paid to stay." The countertrend is inevitable as the flow of young people into the work force declines. For the next several years, however, younger retirees will be available to businesses who seek their services.

Employer Attitudes and Perceptions

While the population is changing, many employers' perceptions about older workers are inflexible:

(1) Retraining older workers is a poor investment because they may work only a few years.
(2) Older workers will have frequent absences because of illness.
(3) Older workers will require higher corporate investment in health and liability insurance.
(4) Older workers will be slower and more reluctant to master new technology.
(5) Older workers will resent younger managers.
(6) Older workers took advantage of early retirement because they want endless leisure.

Companies having experience with older workers offer entirely different perceptions:

(1) Training older workers is often more economical because young employees average only two years on their first job.
(2) Older workers have absentee records virtually identical to the work force in general.
(3) Older workers prefer part-time work and generally have social security and pension-plan health insurance.
(4) Older workers have been found to learn high-tech skills quickly and in matter-of-fact manner.
(5) Retirees know full well and accept that their supervisors will be younger.
(6) Healthy early retirees tend to enjoy approximately six months of leisure, after which they seek out new work ventures.

Employing Older Workers Successfully

Interviews with firms that are already using the services of older workers provide enthusiastic responses and encouragement to other employers.

In Connecticut, Combustion Engineering Inc. solved the problem of recruiting competent secretarial employees by reaching out to their retirees. Three years ago Combustion Engineering offered an early retirement package to all levels of employees, an option many men and women accepted. New contracts and the absence of suitable new applicants necessitated their inviting retired secretaries to come back to work part time, flex time or full time. In the interim, new computers and new software had been purchased, which meant the secretaries would have to be retrained. Combustion Engineering provided tutorials in a learning center where an instructor is available to answer questions. The returning secretaries have been able to master the new technology quickly--some in one day in training, others in two!

The use of their retirees has been so successful that Combustion Engineering now hires other older workers who are new to their company. Combustion Engineering's Carol Jackson asserts that their retrained secretaries are competent, dependable, have high self-esteem and company loyalty, virtually no absenteeism, and organize their time well. In one instance three retirees developed a creative job-sharing arrangement for a single position. Benefits are a non-issue.

Combustion Engineering has had similar success in employing retired engineers for short-term assignments and consulting on special projects. The engineers are offered positions in their own discipline and are familiarized with the current project by project engineers.

In Wisconsin, Wausau Insurance Company employs retirees in all phases of their corporation up to 40 hours per month. The time limitation deals with pension and social security restrictions on earnings. Retirees work in Wausau's training department, welcoming, orienting, and training new employees. "Impressive," is the description Wausau Insurance offers regarding their older workers' accomplishments.

In Connecticut all major insurance companies now actively recruit, train, and extoll the praises of older workers.

Parker Pen Company is increasing their reliance on retirees who work part time. Now British-owned, Parker Pen executives make many flights to and from England. They use retirees to drive managers to and from Chicago's O'Hare Airport. Parker finds the older workers dependably on time, and they value the older workers' exemplary safe-driving records. Their retired employees are eager to work occasionally because they can supplement their incomes and still reserve time for their leisure pursuits.

But can older employees master totally new, complex skills? Reviewing a retired physical therapist's new career gives a positive answer. Upon her retirement at 63, Jean Rowland learned to read Braille, studied but did not complete a course on transcribing print into Braille. Now 77, she has worked for 13 years at the complex task of thermoforming--the process by which masters are made for Braille books. She manually operates a heat unit with suction to produce the raised dots that form Braille letters and characters. Over the years she has thermoformed novels, textbooks, and she has recently completed the first microwave instructions and cookbook in Braille. Complicated? Yes. Painstaking? Yes. The entire process was learned when she was in her mid-60s.

Economic Advantages

All employers interviewed speak of the cost savings because their firms do not need to provide health and retirement benefits to the retiree workers, who already possess these benefits. Each employer spoke of the dependability, verbal skills, and positive attitudes of the older workers who want employment. Altogether, they pronounce their older workers a good investment.

The financial advantages must be viewed from the older worker's vantage point as well as from the employer's. Retirees often need or desire to supplement their income, and they value the opportunity to do so. Even in low-inflation periods, modest price increases are difficult for older people on fixed incomes.

Frances Leonard (1989) points out that working women may have gone in and out of the paid labormarket over the years while balancing family responsibilities. These women have earned substantially less than men. Their retirement income is small, and their longevity long. For these women the opportunity to earn money working full or part time is not a diversion. It is a godsend.

Economic Disadvantages

During each interview employers were asked to describe the disadvantages of training and employing older workers. Each pondered this, and none offered a negative experience. It is difficult to envision an employment situation that poses no difficulties. Apparently the human resources managers view the older worker as close to the ideal!

Evidence in the literature exists to suggest that employment in the later years is available disproportionately to certain groups. In Social Gerontology, Hooyman and Kiyak (1988) point out that older workers are generally concentrated in jobs that initially require considerable education and a long training process (managerial and supervisory positions). Such workers may define themselves by their work efforts and may choose to work long, work in a consulting capacity, or transfer their skills to a related field. Dychtwald (1989) agrees. He points out that judges, politicians, professors, musicians, artists, physicians, and entrepreneurs tend to stay in their careers as long as they can. This relatively elitist situation could encourage fierce competition between the middle-aged and the old in prestige occupations.

Conclusion

Demographic/geographic differences dictate that certain industries will need to retrain and restructure their work schedules to accommodate the older worker. Mixed scanning of the employment scene is necessary, with a concentration on local circumstances. The Northeast is already facing a limited supply of young employees with basic skills, and it is in the Northeast where retraining and arranging work schedules for older employees is a priority. Occupations where English usage, grammar and writing skills are required will be among the first to look to retirees and will be among the first to accommodate flexible schedules. This is out of accord with the tendency for older employees to be concentrated in the professions, for many of these new positions are secretarial.

Age Wave sums up the change: "Later life is rapidly becoming a time when you do not stop working completely, but instead shift gears to part-time, seasonal, or occasional work, mixed with productive and involved leisure activities."

References

Dychtwald, Ken, Age Wave, Jeremy P. Tarcher, Inc., Los Angeles, 1989.

Etzioni, Amitai, Harvard Business Review, Humble Decision Making, Vol. 67, No. 4, July-August 1989.

Hooyman, Nancy R. and H. Asuman Kiyak, Social Gerontology, Allyn and Bacon, Inc., Boston, 1988.

Leonard, Frances, Modern Maturity, Pensions Off Balance, October-November 1989.

Quinn, Jane Bryant, Newsweek, October 9, 1989.

Karin Worthley

Abstract

Opening Eyes, Opening Hearts: A Simulation of the Problems of Ethnic and Cultural Minorities in the Classroom is an experiential workshop designed to help participants develop their sensitivity to the culturally- generated learning problems of immigrant/refugee students. Because many educators and employers are unaware of the extent to which differences may occur among cultures in areas of expectations, knowledge base, style, and values, they disregard the importance of these elements in the learning environment. The workshop focuses attention on these factors with a series of exercises that encourages participants to figure out what to do when people don't share the same knowledge base, how to accomodate differences in style in various cultural groups, and to understand the role of value assumptions that cultures make.

Introduction

We have all heard about the changing work force, and the necessity of preparing ourselves to work in a multicultural environment. We are learning to open our eyes to differences, to recognize that cultures are diverse, even the subcultures within the American culture. Teachers and managers are starting to understand the cultures of their students and employees. Yes, eyes are beginning to open. But, opening eyes is not enough.

Over twenty-five years ago, Dr. Ina Corinne Brown, widely travelled anthropologist, said, "the notion that if people would just get to know one another they would be friends and everything would be all right is as dangerous as it is sentimental. Getting to know people is a necessary prelude to understanding and respect, but such knowledge alone will not resolve our differences or insure our liking people whose ways are alien to us" (1963). People from different cultures will inevitably have differences, some of them major. But we can acknowledge differences and still respect each other. We can open our hearts to each other. Opening hearts, however, is often a slower process than opening eyes.

This workshop is an effort to increase your sensitivity, to open both your eyes and your hearts even wider, through some informal exercises, to the culturally- generated learning problems of immigrant/refugee students and employees.

First, let's define an important term. Just what are we talking about when we talk about culture? Formally defined, "culture is the deposit of knowledge, experiences, beliefs, values, attitudes, meanings, hierarchies, religion, timing, roles, spatial relations, concepts of the universe, and material objects and possessions acquired by a large group of people in the course of generations through individual and group striving (Samovar, Porter, & Jain, 1981). For many people, however, culture is "the strange things other people do." It involves eating unusual foods like ants or partially cooked chicken embryos or wearing unusual clothes or no clothes. For many people it is the opposite of "our way", implying that our way is, of course, the "natural" or "right" way to live.

For our purposes, let us use a very simple definition and define culture as "the shared assumptions of a group of people about how they should live." We begin our enculturation the day we are born, whether our birth takes place in a hospital room or a field, whether our mother carries us in her arms or on her back. And, we learn our culture as we grow through childhood and into our adulthood. It becomes the bedrock that gives our lives stability. Culture is how we know what to expect, especially in new situations. And, therefore it must follow, it is a great source of confusion and insecurity for those who enter a new culture and attempt to live in it successfully without the same shared assumptions. For our refugee and immigrant students particularly, because their contact with mainstream American culture is so new or so tangential or so fragmented, it can be a cause of great frustration.

During the more than eight years that I have served as the Reading/Writing specialist in the Academic Skills Center at the University of Wisconsin-Stout, my work has put me in contact with many ethnic minority students, with many international students and especially with many refugee and immigrant students. The teachers who serve them best seem to understand that their students do not necessarily share the same knowledge base that their mainstream American students do, that immigrant/refugee students have learning styles which may have been at least partially culturally induced, and that acknowledging and respecting their students' deeply held values is of critical importance. So, let's spend some time opening our eyes a little wider to some of the situations immigrant/refugee students or employees might face.

The first set of exercises will help us look at what to do when people don't share the same knowledge base, the second at how to accomodate differences in style in various cultural groups, and the third at our own awareness of the role of value assumptions that cultures make. We'll spend some time after each set of exercises to process your reactions in the large group. Please arrange yourselves in small groups of four or five.

Workshop Exercises

Knowledge Base Exercises

1. Map of Southeast Asia. Participants will each receive an outline map of Southeast Asia, with spaces to insert the names of the following countries: Burma, Thailand, Malaysia, Laos, Kampuchea, Vietnam, China.

2. Map of Laos. Participants will each receive an outline map of Laos, with instructions to fill in the names of the two major cities indicated by dots on the map (Xiang Khoang and Vientiane), the mountains and the major rivers.

3. Following instructions. The following instructions will be given to the groups: a) arrange yourself in the standard BH order, b) Compare the rice planting method discussed in your textbook with the rice planting method used in your own home town.

4. Homework assignments. The following assignments will be made: a) for tomorrow, bring your grandfather to class with you. Anyone who doesn't have his/her grandfather will lose 50 points, b) identify who has studied a foreign language. That person should tonight call the airport in the capital of the country in which that language is spoken and arrange for our class to be met at the airport there next week. No one at the airport speaks English.

Learning Style Exercises

Participants will identify whether they prefer to work in groups or individually on problem solving tasks. Those who prefer to work in groups will be required to do the following task individually, and those who prefer to work individually will be required to do it in groups.

Answer the following questions.

1. A large tree limb became heavily covered with snow last winter. The weight of the snow was so great that the limb eventually broke off the tree and fell to the ground. Did the limb break because it was weak or because it was strong? Explain your answer.

2. Explain why you would eat cold fruit juice, fresh fruit, boiled eggs, cereal with milk and sugar, or pancakes with syrup for breakfast, but would probably not eat fruit salad, ice cream or cake for breakfast?

3. Is there a difference between foot binding in old China, stretching of the lips with plugs by the Ubangi, elongation of the neck by the addition of brass rings by tribes in Burma, wearing of a tight corset to attain an abnormally tiny waist in 19th Century England, implanting artificial silicone tissues to increase the size of a woman's breasts or injecting collagen under the skin to augment the lips in 20th Century America? If you answered "yes," explain the difference. If you answered "no," explain why there is no difference.

Value Assumptions

Participants will receive a sheet with the following statements. For each statement they will either circle A for agree or D for disagree. (All statements represent value assumptions made by those in the mainstream American culture.)

A D 1. Facts speak for themselves.

A D 2. Hunting and fishing are leisure time activities.

A D 3. You should work before you play.

A D 4. A woman should not be embarrassed or ashamed if she has twins.

A D 5. I don't regularly wear a costume.

A D 6. Death can be explained by physical causes, not by evil spirits.

A D 7. The proper response to being given a gift is to say "thank you" and open the present so the giver can see your response to the gift.

A D 8. Young people who are finished with college and who have jobs should find a place of their own to live and not "mooch" off of their relatives.

A D 9. Everyone needs a place where s/he can get away by her/himself for a while.

A D 10. The appropriate term for the brothers of my parents and the brothers-in-law of my parents is "uncle."

A D 11. When a child is being scolded by an adult, s/he should look at the adult as a sign that s/he is listening.

A D 12. A large cut or wound in your body will not allow your "spirit to escape."

A D 13. If my teenaged child had offensive body odor, I would try to teach her/him to bathe daily and use deodorant as part of her/his personal hygiene plan.

A D 14. Mature people settle their differences through discussion and compromise.

A D 15. Politics and religion are topics to avoid in friendly conversation.

A D 16. Girls deserve the same chance to go to college as boys do.

A D 17. Heroes are usually people who stand out from the crowd.

A D 18. I would like my children to become independent, self-reliant adults.

A D 19. People should be free to make their own choices in as many areas of their lives as possible.

A D 20. If someone says I'm not telling the truth, I would talk to them to explain that I am.

Conclusion

What, then, can teachers and managers do to help open their own eyes and their own hearts wider. First, and perhaps most important, make no assumptions. Don't assume your students understand everything that is said in class or your employees everything in the workplace. Help them by writing important things down on the board or by givng them handouts or written instructions they can follow as you talk. Wake up to your own cultural biases and don't assume that everyone else shares them. Wake up to the realization that much of what you assume everyone knows, everyone does not know.

Acknowledge the arbitrariness of the decisions made by a culture about how its people shall live. Realize that no culture has made all the "right" decisions. Accept differences as interesting, not as threatening.

And, when it is important for your students or your employees to know the assumptions of the mainstream culture, share those asumptions with them. Be the person who can be asked "dumb questions." Become a "culture mediator" for them. Help pair them up with others who can help them. Find them volunteer tutors or workmates. Hover between these arbitrary systems for living that we call cultures and remind your students or employees that they can be flexible without losing themselves, just as you can.

Finally, celebrate differences as enriching. When I lived in Korea, I noticed many, many happy babies carried around on the backs of their mothers, their grandmothers, or their older

brothers and sisters. I decided that when I had a child, I, too, would carry that child on my back. Several years later when my daughter was born, I remembered my decision and for her first two years, Laura spent many hours a day in a soft cloth tied to my back. We did housework, weeded the garden, went grocery shopping, cooked meals, mowed the lawn, took walks that way. Today, at sixteen, she is a confident American teenager, with an extremely well-developed understanding of other people and their behavior. Maybe that has something to do with the time we spent bound together, closely tuned in to each other.

Our students and employees who come from other cultures need nurturing in order to succeed in this culture. Yet, even as we nuture them, we enrich our own lives. We have so much to learn from each other. All we need to do is open our eyes and open our hearts.

Recommended Readings

Althen, G. (1988). American ways: A guide for foreigners in the United States. Yarmouth, ME: Intercultural Press.

Casse, P. (1981). Training for the cross-cultural mind. Washington, DC: The Society for Intercultural Education, Training, and Research.

Hall, E. T. (1959). The silent language. Garden City: Doubleday.

Hall, E. T. (1976). Beyond culture. Garden City: Doubleday.

Kim, Y. Y. (Ed.). (1986). Interethnic communication: Current research. Beverly Hills, CA: SAGE publications.

Samovar, L. A., Porter, R. E., & Jain, N. C. (1981). Understanding intercultural communication. Belmont, CA: Wadsworth.

Sarbaugh, L. E. (1979). Intercultural communication. Rochelle Park, NJ: Hayden Book Co.

Sheehy, G. (1987). Spirit of survival. New York: Bantam.

REFERENCES

Brown, I. C. (1963). Understanding other cultures. Englewood Cliffs, NJ: Prentice-Hall.

Samovar, L. A., Porter, R. E., & Jain, N. C. (1981). Understanding intercultural communication. Belmont, CA: Wadsworth.

THE PIVOTAL ROLE OF "EMPLOYMENT SECURITY" IN FORMULATING TOMORROW'S WORKFORCE STRATEGIES

DR. DAVID GORDON
Graduate School of Management University of Dallas
CHARLES E. DAVIS, JR.
Deputy Director-TQM Bell Helicopter Textron

Abstract

The need for sustained growth of organizational productivity has captured our attention. Achieved only with the realization of high levels of worker participation, this issue centers on the operational question of "employment security." A model for needed operational reality will be presented.

INTRODUCTION

A management focus on **quality** flourishes among U.S. producers subject to the last decade of foreign competition. The genocide of poor quality goods and services taught them expensive lessons. As a result, many corporations now resolve to defend U.S. markets by a continuous ***"process"*** (not program) of quality improvement.

The 1980-82 recession is behind us. Current interest rates, inflation and unemployment are at some of the lowest levels known in recent memory. Changes in monetary and fiscal policy support recovery of our balance of trade. And most important, the "quality gap" is beginning to close in some product markets. Yet one critical lesson we have not learned from foreign competitors is the need for **employment security**.

Quite literally, how can we induce workers to show us the inefficiency of our ways unless we offer in exchange the incentive and protection of steady employment? Without this basic trust, ***even the most skillfully managed attempt at quality improvement will fail from the simple lack of work force involvement.*** Employment security is the missing link to work force participation in the organizational improvement process coined "**Total Quality.**"

At this point in our emerging recovery, we should begin contingency planning for the next economic downturn--and for the protection of our most valued resource.

INGREDIENTS OF TOTAL QUALITY

The process of Total Quality takes many forms. We organize quality circles, corrective action teams, and task forces. We hold "zero meetings" and have "supplier days." Our channels of communication include "linking pins" to "bubble up" problems we describe as the "chronic few." We motivate the "Big Q in You" and then solicit your "Buck-A-Day" ideas in token exchange for coffee mugs and rubber dollars. Statistical Process Control (SPC) is the historian of manufacturing processes. Fishbone diagrams control white collar decision making.

Accountability for these many forms of Total Quality expands well beyond functional walls of the Quality Department. ***And we understand clearly the ingredients for activating employee involvement.***

Or do we?

A 1980 study by the Carnegie-Mellon University found 75 percent of the "quality of work life" programs that had been operating at least five years were no longer functioning. Several reasons are cited for this failure.

- The program had a single sponsor within top management whose tenure or interest could not sustain involvement.
- Workers lost interest when increased output was not rewarded by financial incentives.
- Conflicts of interest arose when the program was not offered to all groups within the company.
- Commitment floundered when the company's attention shifted to other "hot" problems.[1]

But the most insidious of reasons for failure is ingrained in the basic attitudes of management. Authoritarianism, mistrust, and top-down hierarchy runs counter to the "quality of work life" philosophy -- that workers should have more control, responsibility, and autonomy over their work place; that decision by consensus should replace decision by command.

The glue of an organization is participation by employees. Do they forward the competitive position of the firm? Do they seek some personal gain that works against it? Entwined in a favorable orientation is the employee's perception of "ownership," an avidly sought affiliation won only by the shared responsibility for decision making. The mission, objectives and actions of a viable organization,

170 BEST COPY AVAILABLE

like the ingredients of Total Quality, are bonded together by people.

THE ROLE OF EMPLOYMENT SECURITY

Even a mature, participative management philosophy may fail to instill trust in its work force. The reason lies in the lack of provision and planning for stable employment. *"Today's layoff is tomorrow's profit performance"* -- this is our historical response to changes in product life cycles and fluctuations in market demand. While valid in the short run, such management practice diminishes and decays work force involvement in Total Quality initiatives.

Case in point: **Work simplification ideas solicited by company suggestion systems.**

> Without policy and practice that clearly protect employees from the efficiency of their own invention, recommendations for labor savings will be scarce.

A process of quality improvement esteems "total involvement" as the source of performance advancement. *"We want to tap the expertise of our work force."* And so we install suggestion boxes, advertise voluntary participation in quality circles, and organize myriad forms of other small problem-solving groups.

Incentives for involvement are equally diverse -- from a pat on the back to a percentage of profits generated. However, even the most elaborate system of recognition and reward will not cloak the inevitable fear of "suggesting" oneself out of a job. For without employment, what good is an "expense-paid trip to Hawaii" or even "ten percent of the annualized savings?" Suggestion systems and small group activities are vital elements of a Total Quality process, but only if backed by a basic agreement for protection against productivity improvements -- especially those specific to labor savings.

Clair F. Vough, former vice president of IBM's office products division, explains the role of employment stability in productivity improvement as follows:

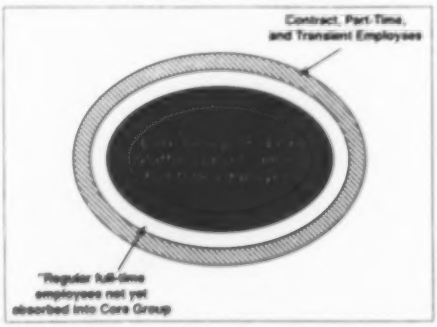
> Full employment -- indeed job security -- is the very foundation of increased productivity. If there ever came a time when we had to lay off people, how could we ever convince them that we have a common interest in trying to put out more goods in fewer man-hours?[2]

Today, "employment at will" is the standard contractual agreement by which workers accept employment. The American employer can cancel the contract -- lay off workers -- for any reason other than capricious discrimination. Outside this country, and in a handful of U.S. corporations, the standard is continuous ongoing employment --insulation from business and product cycles exclusive of "severe economic declines" and "acts of God."

The role of employment security is to promote stability in an unstable world. It is a basic trust between employee and employer that ensures the vested interest of both parties. Each individual becomes a "stakeholder" participating in the acceleration of business at hand. Without employment security, the willingness of workers to contribute slowly erodes. Although in the short run the threat of losing one's job may actually increase productivity, as a continuing diet (i.e., "employment at will") it reinforces an organizational malaise by which all business performance declines.

Figure 1.

LABOR BASE DIFFERENTIATION



WHAT EMPLOYMENT SECURITY IS NOT, AND WHAT IT IS

Employment security is not lifetime employment. Nor is it a guarantee that a worker will continue in a particular job classification. Rather, employment security is a corporate strategy and action plan to ensure ongoing employment for a protected segment or "core group" within its work force. It seeks to manage layoff avoidance for a maximum number of employees.

Few companies can afford the business decision to offer such protection to all employees. The natural selection and orientation to a new corporate culture alone creates a transient segment of labor. Contract and temporary em-

ployees are other segments almost always excluded. Following these extractions, however, a core group must be carefully differentiated from the present labor base. This group represents a lean staffing level justified by historical business growth and long-range forecasts. An effective employment security policy will generally protect 85 percent of the full-time "regular" labor base. (See Figure 1.)

The company's commitment and the specific actions it takes to manage these guarantees must be explicitly documented by policy and procedure. A plan for employment security locked in the files of a select few will only perpetuate mistrust between work force and management. One exemplary case of policy writing at McDonnell Douglas Electronics Company (MDEC), St. Charles, Missouri, includes the organization's objectives for employment security, profit sharing (i.e., "gainsharing"), and expansion of job responsibilities (i.e., "job flexibility") as integral methods in its Total Quality process:

> We at MDEC firmly believe that our people are the most important longterm assets of the company, and are fully committed to a policy of employment stability. Employment Stability/Job Flexibility is a fundamental element of productivity and quality improvement and therefore a natural complement to gainsharing and long-term success. People at all levels of our organization have a responsibility to work for stable employment to the fullest extent possible. A documented system of meaningful procedures will be developed and implemented to ensure stable employment (layoff avoidance) for the maximum possible number of employees.[3]

PLANNING FOR EMPLOYMENT SECURITY

Smoothing the roller coaster ride of market demand requires planning ahead. Even the most diligently prepared business forecast may fail to predict a recession looming over its markets. Thus the first strategic planning decision is to hedge against business cycle downsides by developing a complementary mix of products. Eastman Kodak's entry into office copier, electronic imagery, and consumer battery markets was a response to the recognition of a declining life cycle for traditional photographic products.

Planning directed to human resources must also assume a high degree of reliability. It maps out a long-range labor base according to internal operations schedules for both new and current product lines. As much as possible, internal projects are rescheduled to minimize peaks beyond lean staffing levels. Request-for-quotation activities are also integrated with respect to manpower peaks and the ability to capture follow-on contracts.

Hewlett-Packard is noted for once refusing a large government contract on grounds that the fluctuation in manpower levels was inconsistent with its policy for employment stability. Today, the company still reviews new contracts to maintain a close alliance with products currently being manufactured. The desired effect is to reduce dependence on any single customer. Today the product portfolio at Hewlett-Packard includes only 20 percent government business.

Market demand is rarely stable, however, and internal schedules always include some buildup and corresponding decline in operations. These fluctuations are covered by a series of buffers acting as "rings of defense" around the core group. Such buffers include both internal and external resources to a transient increase in demand.

Internal Resources

- Mandating overtime levels
- Borrowing employees from other departments or divisions
- Temporary depletion of finished goods inventories
- Refrainment from vacation usage during peak periods

External Resources

- Hiring contract and temporary employees
- Subcontracting subassemblies and entry-level operations
- Developing and training a part-time resource group (e.g., students, housewives and retirees) in the surrounding community

Planning for employment security is relatively easy in a period of business growth. Proof of the pudding comes in a recessionary period such as 1975 to 76 and 1980 to 82. A plan for employment stability must acknowledge the possibility of unavoidable terminations in a declining business base. Planning is incomplete without contingencies for out-placement assistance. The maintenance of trust between management and core group is enhanced when redundant workers are assisted in locating new employers. In Europe, out-placement assistance is often required by law.

Strategies abound when markets recede, and one common strategy is *review of make or buy decisions* for possible recapture of subcontracted business. A second frequent approach *is to retrain and redeploy core group members* to emerging areas of business. During the period 1972 to 1975, IBM absorbed two significant declines in market demand by revolving 17,000 employees into new jobs, 7000 of these in fields that required complete retraining.[4] Many similar examples may be cited, but few of this magnitude. Perhaps it was during this period that the acronym IBM came to mean "I've Been Moved."

The purpose of planning for labor-base stability is to avoid the traditional solution to a hiccup in market demand: *layoffs.* Every department, division, and profit center must be accountable for accurate long-range forecasting if the firm as a whole is to manage its employment security commitments. For most of our industrial history we have arbitrarily shifted the cost of poor planning directly to the work force. This must stop if we intend to stabilize the roller coaster of demand and buy back the employee's affiliation, participation and perception of "ownership."

CYCLE OF BUSINESS PERFORMANCE

A 1983-84 study on declining quality and productivity found a widespread search for solutions. Of **Fortune's** list of the 1300 largest U.S. firms, *73 percent had recently approved major company-wide initiatives to improve performance.*[5] Ranked in descending order of application in their respective firms, these initiatives are:

- Cost reduction
- Employee participation
- Productivity incentives
- Goal setting with productivity focus
- Increased automation
- Quality improvement
- Increased employee training
- Better labor-management relations
- Increased research and development

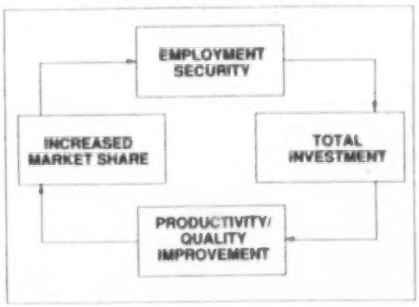
It is not surprising to discover the tradition of "cost reduction" is first on the list. The short-term focus generally ascribed to cost-cutting initiatives confirms the continuing, albeit misguided belief that *quick* results are all that count. Moreover, the stupefying rank order of "better labor-management relations" causes one to wonder. *Can we really want quality and productivity without also wanting to establish work force trust and commitment?*

In contrast is the advanced ranking of "employee participation." As a company-wide recuperation effort, the study cites "employee participation" as having two popular programmatic expressions: *quality circles* and *quality of work life.* Both require a foundation of trust between labor and management.

There is a dichotomous relationship between 1) the tradition of cost cutting and poor labor relations, and 2) the desire for increased performance via worker participation and flow-down of decision making. Perhaps management enviously recognizes the untapped potential of total involvement, yet it is unable to comprehend means of successful capture.

The critical lesson not learned is the "cycle of business performance" as taught by our foreign competitors:

CYCLE OF BUSINESS PEFORMANCE



Simply stated, a policy and practice of employment security gives the incentive for total involvement and the desire to advance a common interest in productivity and quality improvement. As the consumer recognizes such improvement, market share increases and the growth of business promotes stable employment.

Foreign competitors continue to reap success from this strategy to the detriment of our balance of trade in the international marketplace. As notable examples, Japan, France, and West Germany all have established employment security on a national level by labor practice and associated laws of commerce. And as evidence of the cause and effect link between employment security and economic health, comparative statistics for the period 1960-80 show that each of these countries has improved productivity two to three times as much as the U.S.

We can identify with the "vicious cycle of productivity" and its inflationary loss of competitive position (i.e., inefficient production ---> rising prices --->inflation--->increased wages--->more inflation), and we can attempt to combat it by negotiating for wage concessions. However, despite concessions granted, we must also develop work-force incentives that make production more efficient. Few understand the cure for poor business performance as the strategic organizational alignment of employment stability, participative management and Total Quality.

Yet a few have. Control Data, Shell Oil, Exxon, PepsiCo, Procter & Gamble, Frito Lay and Goodyear Tire & Rubber Company are all cited in the business press as experimenting with "open systems," or the removal of the traditional chain of command. Teams meet regularly to set process goals, establish procedures, and discuss production concerns. Management gives feedback on cost performance and renews incentive mechanisms to motivate performance. Devoid of traditional management, many of these isolated experiments are logical extensions of an evolving quality improvement process.

One forerunner of eight years' duration is the Lawton, Oklahoma facility of Goodyear Tire & Rubber Company. The Lawton facility produces radial tires at a cost comparable to that of Korean manufacturers, presently the most aggressive of foreign competitors. Under the "open system," Lawton currently employs 35 percent fewer managers than other similar Goodyear facilities. Output is 50,000 tires per day, whereas comparably sized U.S. plants produce half that amount.[6] Clearly, foreign encroachment on job security is no longer the top concern of this manufacturer.

CONCLUSIONS

In this period of economic recovery, let us also plan ahead for periods of economic contraction--both in general and in specific product markets. The roller coaster of market demand will require swift reactions by a willing work force. To profit from an affiliation of trust with the work force, management must be prepared to rearrange the hierarchy of decision making. Decision by consensus should replace decision by command.

Organizational recuperation goes by many names, yet "Total Quality" embraces the best of all remedial actions: process control, total involvement, group decision making, accountability, incentives, training, customer satisfaction, and above all, meeting of requirements at a cost representing excellent value. Moreover, Total Quality implies an ongoing "process," not a program bonded merely by the transient interest and attention of management on its way to the next "hot" problem. But even with management standing firmly on board, commitment in this quest must be captured by establishment of a basic trust. Whereas the standard was once *"a fair day's work for a fair day's pay,"* increasingly that standard is shifting to more lasting guarantees between labor and management. Precedents are historically available outside this country, and the track record of a few corporations promotes similar action from within the U.S.

The following recommendations will help your organization define its first steps toward an employment security commitment:

- Reassess corporate strategy to prepare for a formal commitment to and a statement of policy for Employment Security. Integrate planning at all levels to effect such policy.
- Establish teams to study and assess potential of Employment Security given current long-range forecasts. Include the union.
- Careful analysis of historical turnover within firm will reveal feasibility of formalizing employment guarantees already tacitly in effect, *(e.g., "We never lay off machinists with five years experience.")*
- Prepare for the inevitability of economic decline,both short and long term. Establish "rings of defense" within employment base.
- Plan also for events beyond your control to buffer and protect the core group. Establish contingency for outplacement assistance.

The allure of Total Quality attracts an increasing number of companies, large and small. Yet even the most skillfully managed attempt at quality improvement can be stymied by the simple lack of work-force involvement. The glue of an organization is participation and commitment --"total involvement" -- by employees. A policy and practice of employment security

is the missing link to worker participation in a Total Quality process. With these management initiatives as organizational partners, we will all share the reward -- the attainment of stable, ongoing, and prosperous employment.

WORK CITED

1. Jack Sheinkman, "Union and Management Joining Forces," NASA Symposium on Productivity and Quality(Washington DC, Sept. 26, 1984), (electrostatic facsimile).

2. Clair F. Vough, "Productivity," AMACOM, New York, 1979, p.39. Cited in Marta Mooney, "Let's Use Job Security as a Productivity Builder," Personnel Administrator, January 1984, 38.

3. "Management Improvement Process," McDonnell Douglas Electronics Company, St. Charles, Missouri 1987, (electrostatic facsimile).

4. James F. Bolt, "Job Security: Its Time Has Come," Harvard Business Review, November - December 1983, 120.

5. Y.K.Shetty, "Corporate Responses to the Productivity Challenge," "National Productivity Review, Winter 1984-85, 9-10.

6. Donald B. Thompson, "Everybody's a Boss," Industry Week, February 23, 1987, 16.

PROGRAM PLANNING MEETS LABOR MARKET REALITY

ARDIS CAZENO, BRENDA NJIWAJI,
CELIA WASHINGTON, DAVID WOEHLER
MICHIGAN EMPLOYMENT SECURITY COMMISSION

Abstract

Effective programs are needed to ensure relevant human resource development. Rational program planning models incorporate labor market information and avoid common planning pitfalls. In order to improve the overall human resource system, proactive strategies to increase the availability and utilization of labor market information and other planning resources must be implemented.

Introduction

Human resource professionals face an important challenge. The changing labor market requires programs which address the need for relevant development and better utilization of labor skills to ensure a more competitive economy. Human resource programs that are effective in today's terms will not, and many feel should not, survive. In Michigan, the challenge is coordinating a statewide network of services that includes continuing education, job training, placement assistance, financial aid and many others. The Michigan Opportunity Card, a smart card that stores and allows access to this network of services, is a major tool in building the Michigan Human Investment System.

The following discussion provides an overview of basic program planning concepts for successful application by human resource professionals at various levels of administrative responsibility. Effective planning alone will not guarantee the long-term success of human resource programs, but it will contribute significantly to improved program performance.

Barriers to Effective Planning

Numerous barriers to successful human resource program planning exist. Some of the most common include:

- No clear understanding of the organization's mission and roles
- Plan does not incorporate changing labor market conditions
- Key players are excluded
- Politically motivated decision making
- Lack of realistic, measurable goals
- Funds are overcommitted
- Poor monitoring and evaluation
- Poor documentation and feedback
- Planning is an end unto itself
- Planners are not allowed to plan

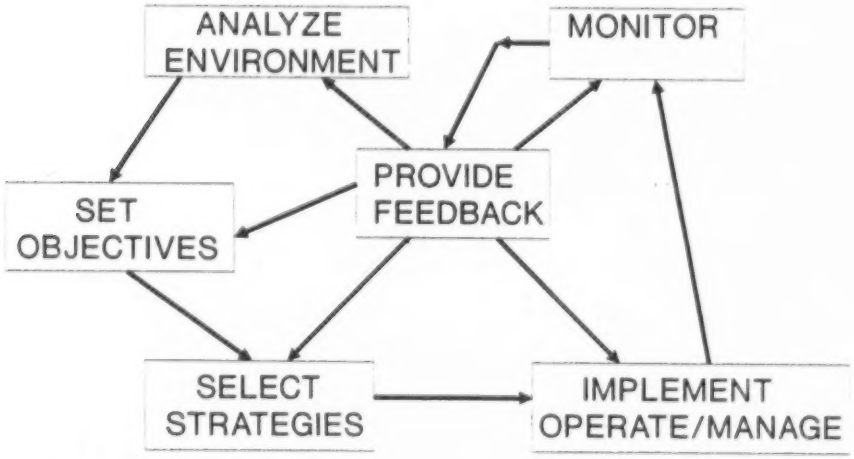
Most of these barriers can be overcome or at least minimized by using a rational planning approach.

Program Planning Model

An exemplary model is featured in Cracking the Labor Market for Human Resource Program Planning by Andy Sum, Lorraine Amico, and Paul Harrington. "The Rational Planning Model for Human Resource Programs," depicts planning as an "on-going process with built-in flexibility for change." Changes in labor market conditions, funding availability or program

TABLE I

RATIONAL PLANNING MODEL



Based on model contained in
Cracking the Labor Market For Human Resource Planning
National Governors' Association - Center For Policy Research

experiences can readily be accommodated. The five highly interdependent planning activities are addressed sequentially:

1. Analyze existing and projected environment
2. Establish program goals and objectives
3. Review and select program strategies
4. Implement, operate and manage programs
5. Monitor and evaluate programs

Since feedback from one planning component to another is always necessary, the Rational Planning Model is "characterized by circular relationships rather than a set of activities with fixed beginning and ending points." (See attached Table I.)

Labor Market Information (LMI)

The application of formal and informal labor market information to each of the five major activities of the Rational Planning Model, is essential. While labor market information needs vary considerably, depending on agency mission and program staff functions, certain basic data elements are typically utilized. LMI-producers are better positioned to assist program planners with their information needs if the planners can clearly communicate the purpose of the planning activity. Although helpful, it is not necessary for the planner to know the names of LMI data bases or documents. Listed below, under each planning activity, are typical purposes for which information is needed:

1. **Analyze Environment**

   . To review and analyze local population/ labor force composition, trends
   . To identify groups with relatively high unemployment
   . To identify target population employment barriers
   . To assess available labor force reserves (pools of workers for new or expanding firms)
   . To assess employment structure, outlook of local jobs and identify potential training/placement or economic development areas

2. **Set Objectives**

   . To determine adequacy of mission to labor market reality and changing priorities in state and local policies relating to program
   . To establish clearly defined, specific goals necessary for selection and design of program strategies

3. **Select Strategies**

   . To evaluate information in order to ensure program effectiveness:
     - select program mix
     - develop curricula
     - develop performance standards

4. **Implement, Operate, Manage**

   . To facilitate program participant access to labor market/occupational information
   . To develop realistic employability plans
   . To match classroom instruction with skills needed to perform adequately in "real world" job settings
   . To reduce unemployment duration; improve employability, earnings, job satisfaction
   . To target appropriate industry/ occupation for job development/placement

5. **Monitor and Evaluate**

   . To track target group employment, unemployment, earnings, training experience over some given post-program period
   . To estimate actual net contribution of program participation
   . To identify factors affecting program success or failure, including labor market conditions and occupational employment developments

Feedback of evaluation findings is needed:

   . To take necessary corrective action such as modifying current program objectives, strategies, or operations
   . To plan, design, and administer future programs

Proactive Planning Strategies

In addition to the basic program planning guidelines previously discussed, there are several recommended action steps for administrators and planners:

. Obtain training to develop a working knowledge of LMI, program planning and human resource development concepts and applications.

. Assess statewide human resource development and utilization needs and advocate implementation of a comprehensive human investment strategy.

. Network with your counterparts in your state and in other states to identify innovations in the LMI and Human Resource Development fields. Support ongoing dialogue among business, labor, education, and government leaders.

. Communicate with major LMI producers in your state regarding the strengths and weaknesses of data available for planning purposes.

Advocate state and local support for the continued development of local LMI. More funding is required for LMI activities, e.g. development of local data bases, data analysis, and training for data producers and users.

A valuable source of information on current and desirable LMI capacity is Labor Market Information: A State Policymaker's Guide, by Paula Duggan, Northeast-Midwest Institute, The Center for Regional Policy. Telephone: (202) 544-5200.

References

Below, Patrick T.; Morrisey, George L.; Acomb, Betty L.; The Executive Guide to Strategic Planning, Jossey-Bass, Inc., San Francisco, 1987.

Duggan, Paula, Labor Market Information: A State Policymaker's Guide, Book I, Northeast-Midwest Institute, The Center For Regional Policy, Washington, D.C., 1988.

Morrisey, George L.; Below, Patrick T.; Acomb, Betty L.; The Executive Guide to Operational Planning, Jossey-Bass, Inc., San Francisco, 1988.

Sum, Andy; Amico, Lorraine; Harrington, Paul; Cracking the Labor Market For Human Resource Planning, Center For Policy Research and Analysis, National Governors' Association, Washington, D.C., 1986.

Dr. Judy R. Kuhlman, Executive Director
and
Neva J. Allen, Program Coordinator

Abstract

Project AHEAD

Project AHEAD, "Adults Headed for Education, Advancement and Development," began in 1985 in response to the Carl Perkins Vocational Education Act of 1985. The Western Missouri Private Industry Council, Inc., was the first private industry council in the state of Missouri to initiate coordination of funds through the Carl Perkins Act which mandated that vocational services be provided to increase the successful enrollment of single parents, homemakers, and displaced homemakers into vocational programs by coordinating services with job training programs as designed by the Job Training Partnership Act.

A program to serve rural Missouri was considered necessary since Regional Centers established by the Missouri Department of Elementary and Secondary Education were outside of the 13 rural counties served by Service Delivery Area 4. Participation in this program would likely require lengthy travel to regional centers serving larger populations.

The history of coordination linkages with the seven vocational-technical schools and the junior college within SDA 4 was instrumental in the decision to begin this program and has been the catalyst to its immediate and continued success. Project AHEAD has assisted over 1000 women since its first workshop in March1986 in learning of career opportunities which were open to them. The services received by each individual varied depending on the needs of the individual.

Project AHEAD services are designed to eliminate the barriers which may be keeping single parents, homemakers, and displaced homemakers from entering the workforce. Traditionally, this process begins with making a career choice. Career choice involves exploration though assessment and counceling. Additional barriers include: Low self-esteem, the lack of a high school diploma, no available funding to receive additional education, and the lack of adequate childcare, and transporation while training.

Project AHEAD has always established a priority to serve JTPA eligible participants by coordinating educational funds. This program has increased the number of JTPA eligible students receiving tuition assistance from Carl Perkins funds through the schools by 200% since 1985. This coordination has allowed not only expanded usage of limited tuition funds, but the JTPA assistance for transportation and childcare has resulted in a greater utilization of Carl Perkins funds. Many women could not have participated in the vocational programs without assistance in tuition, childcare and transportation made available through the Western Missouri Private Industry Council, Inc.

Funding for the operation of Project AHEAD has fluctuated throughout its four years of operation. In 1985, the program began with operational funds through the Sex Equity Department of the Department of Elementary and Secondary Education. Additional funds for counseling were provided through the Western Missouri Private Industry Council, Inc. In 1986, operation funds were provided through WMPIC through vocational schools who were receiving recruitment programs through AHEAD.

In 1987 and 1988, Project AHEAD had the opportunity to expand its services by requesting Coordinated Matching Grant funds. These funds were II-A 8% funds made available by the Department of Job Development and Training to the Department of Elementary and Secondary Education for coordination efforts. This expanded budget allowed for

operational expenses as well as tuition support for an additional 40 women and supportive services for transportation.

Due to the linkages of services provided to the vocational-technical school and the community college by WMPIC and Project AHEAD, a mobile assessment center was begun in 1987 to assist in career choice and basic skill evaluation for JTPA and Carl Perkins participants. The Assessment Center has proven to be a valuable service throughout the rural community. The Center's mobility allows testing at plant sites when they are planning on expanding their operation or when they are facing a closing.

Highlights for the program are led by the selection of Carol Schibi, a Project AHEAD participant who was one of seven across the nation to receive the first Outstanding Adult Learner award from the American Association of Adult and Continuing Education in Washington, D.C., March 23, 1987. She was nominated for this recognition for the manner in which she used education to overcome the economic barriers faced by her family when they were facing a farm bankruptcy during the agriculture crisis. Her strengths include high academic and personal standards. Since receiving this honor, she has addressed various state organizations about her experience, which has helped to establish a better understanding of the Job Training Partnership Act programs.

Recruitment has been improved in not only reaching the single parent, homemaker, displaced homemaker population, but also high school dropouts, when coordination was made through agencies providing health services for women. This enabled the program to provide educational information to over 1500 women. In this process, over 800 women were identified who had young children of whom 43% were high school dropouts and 62% were interested in vocational training.

In identifying this population, Project AHEAD has been able to restructure program services to include childcare assistance for individuals seeking basic and remedial skill training. They were also instrumental in coordinating busing for individuals wishing to study for the GED in order to enter vocational training.

In October 1988, The Western Missouri Private Industry Council Inc. and Project AHEAD received the Governor's Award from the state of Missouri for Outstanding Contributions by a Job Training Program for Special Populations.

In Program Year 1987-88, 147 individuals received direct services through Project AHEAD. These services included: 107 in vocational training who received tuition, supportive services, or employment counseling; 13 were enrolled in GED preparation; 19 completed vocational assessment in preparation of entering training, and 8 were served under other JTPA II-A activities.

Of the 147 individuals served, 30 were high school dropouts and 98% were economically disadvantaged. In a closer evaluation, the WMPIC found that many of the individuals in this program did not have one barrier to employment but had an average of four barriers which included: being a high school dropout, being a teenage parent, having children under the age of 6, having children under the age of 18, receiving federal assistance, being a displaced homemaker or being handicapped.

The multifacets of the program often make it difficult to measure its success. By job training performance standards, of the 56 individuals terminated from skilled-training programs, 30 entered employment with a 54% positive termination rate. The average wage at placement was $5.15. In this type of program, we have found that even though individuals may find a reason not to complete a program on their initial attempt, they very often return when their personal situations have stabilized.

The success of Project AHEAD continues to grow from the coordination linkages which exist between the social agencies which also serve these populations. These agencies welcome the opportunity to provide information for their clients since they are assured that a case management approach will be offered

as they go through the employment selection process.

Project AHEAD has expanded their services in 1989 to better assist those who receive tuition by offering special retention counseling. Their services will now involve all educational linkages with the job training programs offered through the WMPIC.

Project Networking

The goal of this program is to design, implement and evaluate the impact of a networking project for women who are JTPA participants in Service Delivery Area (SDA) 4. The project trains participants in basic survival, career advancement and social skills networking.

In 1987, the Missouri Council on Women's Economic Development and Training commissioned a study to investigate the reality of thesefigures for Missouri women. Specifically, the objective was to uncover the barriers that Missouri women encounter in trying to obtain jobs and/or gain access to jobs which provide greater challenges and rewards. A second purpose was to examine data sources that reflect the status of women in the labor market. A third objective was to review and assess the services women receive from existing employment, training and support programs in the state.

It was discovered that second preceeded only by traditional low wages in traditional females was lack of networking skills. The survey category of "not knowing the right people and knowing the system to get information about jobs."

Program Design. This project is designed to implement networking opportunities for women who are JTPA participants in SDA 4, to share information and ideas and provide support to better prepare them to use networking skills to achieve their individual career goals. Networking focuses on female welfare recipients who often are individuals that require additional, individual support to enter the workforce.

Support for these individuals is through additional activities included in the programmatic delivery of already existing JTPA programs which are operated by the Western Missouri Private Industry Council, Inc. These programs include the Employment Opportunity Seminars (Job Seeker), Skill Training Programs, On-The-Job Training and any other programs in which women may be enrolled. In SDA 4, delivery of the programs is provided through a cooperative effort involving community based service providers (sub-contractors), educational institutions, and other agencies. Through an already established network, referrals are made to assure that all participants and potential participants are guided to the most appropriate services.

Project Methodology. Project Networking provides the basis for a systematic approach to networking procedures which assists women with their basic survival skills, career development, and social interaction.

The Western Missouri Private Industry Council, Inc. operates every available JTPA program, as well as special projects which target specific at-risk and hard-to-serve populations. The Service Delivery Area is comprised of 13 rural counties with a population just over 250,000.

The Western Missouri Private Industry Council, Inc. is determined that more than just a skill training program was probably required to assist women with the transition to work and the progression of job and career development resulting in the creation of Project Networking. Funding was sought and received from JTPA II-A 8% funds provided to the Missouri Council of Women's Economic Development and Training. The program was designed to study whether providing networking skills instruction to female JTPA participants would make a significant difference in the entered employment rate, wage at placement, and on-the-job progression.

Program Objectives and Outcomes.

Program Objective #1. The networking project will identify and define those networking skills necessary to achieve successful

linkages and affiliations to ensure placement in a training related occupation at a higher wage as well as to ensure job retention and longevity at the work place.

Outcome. Networking skills to be achieved will include basic survival skills, the skills necessary to aspire to career advancement as well as provide social networking skills training.

Program Objective #2. The networking project will provide data which will either prove or disprove that networking skills provided in this format are beneficial to individuals personal, professional and economic advancement.

Outcomes. A control group of fifty (50) JTPA program women participants and one treatment group of 50 similar women will be randomly identified with only the treatment group being given networking skills instruction.

After comparison of the termination characteristics, it will be determined whether or not networking skills increased training related placements, provided higher wage rates and produced working longevity.

Program Objective #3. The coordinator of the networking project will research existing resource materials and develop and produce an instructional module to include a 15-20 minute videotape about networking linkages as the program becames integrated into regular JTPA program delivery.

Outcome. The completed videotape and printed instructional materials will be made available to the SDA's in Missouri for their use.

Program Objective#4. The coordinator of the networking project will conduct two follow-up seminars for former Networking participants to reinforce the validity of using networking skills.

Outcomes. Participants will provide input to the coordinator about how networking was beneficial to them as they moved into employment.

Collection of post-program data to use to build networking linkages as the program becomes integrated into regular JTPA program delivery.

Implementation. In order to effectively teach the utilization of Networking skills, a video and workbook was developed. The need for an individual to recognize their own pre-existing Networking system is very important. The realization of this system and the ability to capitalize on this resource is reinforced further during the Networking presentation by the use of the video and workbook.

Data Collection. This study consists of 100 women selected from Skilled Training and On-The-Job Training participants. (Fifty in each group). They were then broken down into a Treatment Group and a Control Group.

The treatment group receives a pre-test to check prior knowledge of Networking. They then view the Networking video and complete the workbook teaching the strategies of Networking. A Post-test is then administered two weeks later. The control group is only given the Post-test to determine if there truly is a need for this program.

Follow-up at 45- and 80-day intervals will occur as part of the project. Treatment versus Control participants will be evaluated in the following areas: Wage at placement, or advancement during the 45- 80-day follow-up period, personal confidence and professional development. The final report will be prepared and submitted December 30, 1989.

Project Networking provides women who are at risk of remaining dependent on society, the opportunity to acquire self-esteem, coping skills and behavioral attitudes through counseling and networking activities. As individuals develop their self-worth, they increase their personal responsibility which promotes the likelihood of career success.

PROJECT RESOURCES:

RECOGNIZING THE OLDER WORKER AS AN INTEGRAL PART OF THE WORKFORCE

DARLENE S. YOSELOFF

DIRECTOR, PROJECT RESOURCES AND SPECIAL PROJECTS
MIDDLESEX COUNTY COLLEGE, EDISON, NEW JERSEY

Abstract

As all current demographics indicate, the American workforce is changing. Increasing numbers of women and minorities will be integral to the workforce and so too will be increasing numbers of older workers. At this point in time, many older workers need or wish to secure employment but are hindered by a lack of knowledge of strategies and by societal attitudes. In order to successfully pursue and find a suitable position, they are in need of instruction and supportive services. Project RESOURCES provides participants with training in job search skills; maintains a job bank of potential employers; matches potential employers and participants; advocates for the older worker; and builds an active network of support, including other agencies and institutions, to provide necessary services to participants.

Introduction

Project RESOURCES assists the older worker in identifying and obtaining viable employment on a regular full time, part time or temporary basis. RESOURCES provides those workers over the age of 55 with the information and techniques necessary for a successful job search. With emphasis on education and training, innovative programs and individualized approaches are available to all registered participants. Older workers are referred to appropriate employers through a job bank system. Continually updated, the job bank, an employment clearinghouse, is particularly helpful to those older workers faced with outplacement; forced early retirement; or those for whom retirement was unsatisfactory.

The combination of a tight labor market and demographic indications of an increasingly aging population, makes RESOURCES a timely program with both immediate and long term impact. With its inclusive programming all older workers are eligible. In fact, services are provided for those workers who were mired in economic changes that led to mergers, acquisitions and subsequent lay-offs (or premature retirements) in record numbers. Within the RESOURCES program structure diverse talents are recognized and placed in the workforce to the advantage of both worker and employer.

Traditionally the older worker is recognized for dependability and stability. Although these traits are highly regarded, older workers facing unemployment are often deficient in the current skills necessary to find a job. Training is needed. Many older workers indicate frustration at hearing the words "over qualified" and

interpret them as an example of age discrimination. Career support is needed. Still others face the grieving process as they try to understand the economic changes that led to the end of 25 or 30 years with a company. Guidance and peer support are needed. For those retirees who need to supplement their income, or for whom mental stimulation and social involvement, as defined by work, is critical, new options must be explored. The flexibility and scope of RESOURCES significantly addresses all these needs.

Target Population

With the aging of the workforce and the demographic impact of the "baby bust," RESOURCES is a timely and effective program whose growth in the supportive environment of the community college impacts positively on the lives of its participants and the employment picture of the state's businesses and industries.

From its inception, and using the registered participants as a study group (total number of participants to date 664), the diversity of the group in terms of needs and abilities was most apparent. Skills range from non-specific clerical and assembly line work to middle and upper management and skilled industrial workers. Retired professionals, such as chemical engineers and accountants, continue to register as participants.

As a group older workers represent more diversity than any other age group. They may be identified in a number of sub-groups and include dislocated workers (both blue and white collar), retirees under 62, retirees 62-69, retirees 70+ and women who may be returning after an absence of many years. Although the age (over 55) defines them as older workers, needs vary greatly. A participant who retired at 55 as a result of a corporate merger, may have income and family responsibilities, i.e., children in college, mortgage payments, similar to someone 40 or 45 years old. A retiree at 62-64 who has started to collect Social Security has a restriction placed on earned income. Just as AARP invites advertisers to understand and reflect in its marketing approaches the extremely diverse group that it represents, so too must any one involved with recruiting and placement of older workers have this understanding.

Age is the only factor that determines eligibility for the RESOURCES participant. Its inclusiveness is in direct contrast to the exclusivity of other older worker programs where criteria are used to eliminate applicants. In this region, existing programs place stringent economic criteria on applicants.

Faced with the loss of a job, the older worker often confronts rejection guised in terms such as "over qualified" or "lacking computer literacy." The phenomenon of mergers and acquisitions caused many older workers to lose their jobs; particularly hard hit were mid and lower managers. As stated in the discussion on diversity, for many early retirement was not a choice but an economic hardship.

There are many reasons for the older worker to return to the workplace. The change from a manufacturing-based economy to one of service left many older workers without jobs or transferable skills. For older workers over 65, retirement may not have met their expectations. Economic constrictions, social isolation and/or a decrease in mental stimulation are often mentioned as reasons for returning to work.

Objectives

The RESOURCES participant may expect the program to be a source of current job information. They may avail themselves of training in job search techniques with focus on resume writing, interviewing techniques and completing applications. As appropriate they

are referred to specific employment opportunities and/or training courses. They are advised of activities relating to employment and are encouraged to attend these activities. The activities may include, but are not limited to, job fairs, workshops, informational interviews and peer support sessions.

Advocacy for the older worker is an on-going objective of RESOURCES. It is promoted in association with such groups as the New Jersey Task Force on the Older Worker, area Chambers of Commerce and other business and professional organizations. Employers are invited to participate in educational experiences for and with older workers as a key in the continual process of advocacy.

Methods

RESOURCES is an open entry program under which participants are provided with individual and group activities designed to successfully find and maintain unsubsidized employment. All participants are interviewed in the context of the monthly Discussion Group meeting. If this is inconvenient for the participant an individual interview is arranged. A staffing follows in which an individualized approach is discussed for each participant.

Most participants are encouraged to attend the monthly Training Seminars in job search skills. The Seminar has evolved into its present format of two half day sessions allowing interim time for independent research and work. Although the Project Director conducts the seminar, employers (on a rotating basis) are invited to conduct the interviewing portion. This gives the participant the opportunity for "mock interviewing" and to understand the interviewing process from the employer's perspective.

The program is based on the self-directed job search model which requires that job seekers develop and implement their own self-marketing plan. Participants are expected to assume responsibility for their job search activities. When a referral is made the participant is expected to arrange for an interview and follow any of the employer's procedures or prerequisites. Whereas RESOURCES provides the motivational and technical support, jobs are not assigned. Ultimate decisions to accept or to reject jobs remain with worker and employer.

Staff

Currently RESOURCES is staffed by a full time project director and two part time assistants. The staff is supplemented by several volunteers selected from the registered participants. At this point, the volunteers are responsible for updating employer contacts. It is part of the specific design of RESOURCES that, other than the director, all staff members are over the age of 55. A combined work history of business, industry and management serve them well as they have assumed the roles of peer advisors. They are able to empathize and advise from the perspective of similar age, background and life experiences.

Conclusion

In January 1989 the Older Worker Task Force reported to then Secretary of Labor Ann McLaughlin that although there were barriers to employment for older workers, they were not insurmountable. Many in the field concurred and in fact had advocated this to all who would listen.

One of the recommendations made in the report called for the creation of new human resource strategies. The need exists for positive work environments which offer opportunities for upward mobility regardless of age. In addition, pre-retirement planning must include continued work options. The options may differ from previous work assignments; however, they can be an integral part of the retirement package. It is suggested that work assignments change to fit older workers as, and

when, necessary, encouraging flexibility, job sharing and job redesign.

In building a quality workforce more older workers will be needed. Managers and human resource personnel will want to recruit, train and retrain older workers and will find that all of those objectives can be met. An understanding of the older workers' perspectives and needs and the diversity that is represented within the group will lead to more successful matches of worker to job. Assignments that recognize the necessity of flexibility of hours and the existing institutional impediments to work faced by older workers will be the most successful. In addition, training must be encouraged at all levels within a work climate that provides opportunities to upgrade skills and supports the concepts of life long learning.

Suggested Reading

The following titles are recommended to RESOURCES participants and are included in the prepared materials used in the training Seminars.

Brandt, E. with Corwen L. (1987). Fifty and Fired. Bedford, Massachusetts: Mills & Sanderson.

Hirsch, Paul (1987). Pack Your Own Parachute. Reading, Massachusetts: Addison-Wesley.

Myers, A. and Anderson, C.P. (1984). Success Over Sixty. New York: Summit Books.

Scott, H. and Brudney, J.F. (1987). Forced Out. New York: Fireside Edition, Simon & Shuster, Inc.

Sheehy, Gail. (1981). Pathfinders. New York: William Morrow.

Program administrators may find the following material of interest:

National Council on The Aging. Seminar on Services to the Older Worker. Washington, D.C.

New Jersey Department of Community Affairs, Division on Aging. (1985). Understanding And Managing An Aging Workforce: A Guide for Employers.

United States Department of Labor. (1989). Labor Market Problems of Older Workers. Older Worker Task Force: Key Policy Issues for the Future. Workforce Quality.

Dr. Judson M. Lyon

Project STAY: School Dropouts And The Workforce

Learn about the broader application of a successful (70% rate) program designed to recover dropouts. This project, jointly funded by Milwaukee Public Schools, JTPA, and the Carl Perkins Vocational Education Act, involves an individualized, self-paced curriculum, specialized and individualized job assessment and training with extensive counseling and support, tryout employmment, and comprehensive evaluation, referral, and follow-up.

Project STAY of the Milwaukee Public Schools grew out of a serious problem. Approximately 40 percent of the students who enter high school in Milwaukee fail to complete that program. They drop out. Furthermore, more than half of these students have never had a successful work experience. Consequently, their future in the work force is bleak.

Milwaukee Public Schools had experimented with a variety of programs designed to meet the needs of these students including various outposts attached to the regular high schools, the Demmer Center outreach program and a business skills Program. None had been an integrated comprehensive attempt to deal with these students' lack of academic skills, their lack of successful work experience and their poor self-image. Project STAY represents such an attempt.

This program was possible because of the availability of funds from a variety of sources. It is supported by Joint Training and Partnership Act monies, funds from the Vocational Education Act and support from Milwaukee Public Schools. It is a very expensive program, requiring an initial investment of about $100,000 in equipment and curriculum materials and a staffing ratio of a teacher/counselor team for every 25 students.

Project STAY involves four closely integrated components. First, there is an individualized, self-paced, tiered curriculum. We utilize the Comprehensive Competencies Program developed by U.S. Basics Corporation of Washington, D.C. The keys to a successful curriculum for a program of this nature are its adaptive nature, that is the ease with which staff can adapt it to fit the individual needs of each student. It is intricately tiered from grades 1.0 - 12.9, it is comprised of highly concentrated units and it furnishes almost daily feedback to

the student. Although most students take reading, math, and language, they may also study science, social studies and GED preparation.

The teachers we utilize are upper elementary certified because they must teach a variety of subjects. Students spend a minimum of two and one-half hours per day, four days per week on this academic skills training. Again this is only a guideline. Two and one-half hours a day are suggested by the CCP Corporation as the minimum necessary to gain a full year in each subject in one academic year. The key is to push the students to do as much as they can while treating each student as an individual and meeting their needs. This academic work is supported at Project STAY by a Chapter One program where students can obtain additional academic drill where it is needed, by student or peer teaching and volunteer tutors.

The second component of the program is the Job Skills/Job Retention Class. Starting this year, we will be utilizing a new approach that employs a teacher/counselor team approach one day a week for two and one-half hours. The materials will be drawn from the Functional Component of the CCP, The Developmental Guidance Curriculum produced by MPS and various other job related activities and materials from other sources. The purpose of this component is to train the student in the practical skills and attitudes needed to be successful in the job market, to work with them on many life skill areas such as budgeting, landlords, the law, purchases, and government regulations, and to assist them in recasting their self-image. This work can be accomplished either in an individualized format or in small groups. Once again, given the need for competency in the aforementioned areas, the program should be adapted to the needs of the individual student.

Third, almost all students also take employment training classes. These are taught at MATC or by various employers who have the facilities to undertake this function. We have formal and informal job training agreements with the McDonald's Corporation, the Wisconsin Gas Company, Milwaukee Biscuit Company, Guardian Protective Services, Payco Printing Company, and several nursing homes among others. The purpose is to give the students actual job skills that they can utilize on the job to enhance their employability.

As an adjunct to the above, each student undergoes a two and one-half hour multi-phased job assessment that identifies both their job skills and their interests. This material is then used to advise the student on a current job placement and a future career. One of the most important ambitions that Project STAY has for its students is to help them develop some short-term and long-term goals. These have been singularly lacking in most students we serve. The assessment gives us tools with which to work.

The fourth component of the program is Tryout Employment, funded of course by JTPA. Our counselors assist the student in locating jobs, mostly in the spring semester. They then support them through 150 hours of reimbursed employment and a minimum of 40 hours of unreimbursed employment. We find that this frequently requires taking the student to the job at least the first time, and frequently the first several times, and making at least two contacts with the employer and the student each week, at least one in person. There are in many cases five to ten years of bad habits to overcome, as well as negative attitudes on the part of the employer, lack of family support and problems associated with the streets, peers, and self-image.

Project STAY has been reasonably successful with these students. At least 70 percent of the students we register in the program complete the components of the program. They earn at least two credits per semester and complete the tryout employment successfully. This year 107 of the 156 students we took in were successful. Another ten earned the credits but did not complete the tryout employment.

It is crucial to note that this level of success requires almost daily interventions to overcome almost non-existent families, frequent street problems, long-standing bad habits and abysmal self-images. The absolutely essential prerequisite to the success of a program like Project STAY is a deeply caring and committed staff willing to treat these students as human beings, willing to become involved in every aspect of students' lives whether it be family, street, health care, court or social welfare, and willing to adapt the curriculum and the program to meet the needs of each individual. We are blessed with such a staff at STAY.

Our teachers and counselors make frequent home visits, go to court or social welfare agencies with our students and maintain a firm but caring family-oriented environment at STAY. We do make demands on our students and we do have expectations but we tailor those to each individual. We are willing to give students second, third, and fourth chances; we also have to cut the strings sometimes when a student is jeopardizing the program as a whole by his or her behavior or shows no interest in succeeding.

After students complete their one year at STAY, an intensive counseling session (sometimes more than one if necessary) is undertaken with teacher and counselor to advise the student on their future plans and goals. The assessment profile and all the experiences at STAY are brought to bear to help the students make the best choices.

We have begun a follow-up program. Up to this point we have only had the students for one year, usually an academic year and a summer session. Consequently, we need to know what impact we have had on students down the road. The follow-up program was begun on an informal basis this year. We utilized the informal contacts we had with students from the previous two years. 41 of the students from those years (35 from 1987-1988) contacted us. Of those who contacted us, 90% were either still working, or in school, or both.

This year we intend to undertake a more intensive follow-up program. In the first week of school our counselors will attempt to contact each one of their students from the previous year, find out what their plans are, and encourage them to carry these plans out. We will then check again during final exam weeks in January and June, compile that information, and combine it with whatever informal contacts we make to get a sense of our impact.

We will also be carrying over some of our students from 1988-1989. This is an experiment to see how a second year works. In the past, limitations on JTPA support and the somewhat repetitive nature of the curriculum militated against continuation. We hope we have worked out some of those problems.

There are some concerns or questions on which work is being done. The one-year limitation was one. A second has been the repetitiveness of the curriculum. This year we introduced and/or worked on a series of options for students. Some variety is necessary to keep up their interest. We introduced a new reading, discussion and writing program and we maintain and

constantly expand a library of popular and classic books. We are developing and expanding a program of African-American studies materials with which students may work. We are also introducing a modified functional component and the CCP Social Studies course.

Another need we have discussed is for more proactive counseling. We lose students or have problems with students at fairly predictable times. For example, when students turn 18 or get their first check or are on vacations there are problems. We need to discuss these issues and others with students before the fact and help them develop strategies to avoid disaster. It is our hope that the new modified guidance and functional component of our program will give us a means to deal with these issues.

Lastly, there are some students with whom we have not been able to work. We must be able to find something positive with which to work, and we look very hard. However, it the student does not really want to be with us, or is too hostile, or is unemployable for some reason, then we are unable to work with them. Additionally, between 25 and 30 percent of the students we do accept drop out or fail to complete the program.

We cannot substantially further alter the character of STAY to deal with these groups. We must work with those with whom we have been and can be successful. Our experience suggests the need for even more adaptable street outreach programs for these other young people. Programs that go out looking for them and just try to get them involved in something positive. That is not our function. We are most successful with 17-19 year-olds who are able to make some kind of commitment, however limited and fragile.

A Proven Curriculum and Methodology for Creating a Technologically Literate Workforce

Paul Agosta

A historical background shows the need for technology literacy in todays workforce. Technology literacy is defined as the missing link between basic skills instruction and machine-specific training. The thinking pyramid model is proposed as an effective method of problem solving in technology training. The qualities that make a person technologically literate are enumerated; special emphasis is given to an examination of problem-solving and teamwork skills. Finally, there is a summary of a pertinent current debate: Is the private sector or the public sector responsible for technology literacy training? Emphasis is given to the Committee on Education and Labor Report submitted by Chairman Hawkins to accompany H.R. 7 and other documents describing the dramatic new features of the Carl D. Perkins Applied Technology Education Amendments of 1989.

As Director of Marketing for the Advanced Center for Technology Training (ACTT), Paul Agosta is responsible for the development and implementation of the sales and marketing strategies for ACTT's curriculum and services. His experience in computer sales and public education prepared him well for his position; he came to ACTT familiar with both the industrial and education markets, and he has helped ACTT become a nationally recognized leader in technology literacy training. His solid leadership and organizational skills have also been an asset.

Mr. Agosta received his bachelor of science degree from Michigan State University and his master's degree from Wayne State University. He is active in numerous training and education trade associations, including the American Vocational Association, the American Society for Training & Development, and the Oakland University Education Specialist Steering Committee.

My objectives today are to:

- Define the new basic skills — key among them technology literacy
- Increase your understanding of what is entailed in technology literacy training that distinguishes it from other sorts of literacy training
- Define the role of that training in producing an economically competitive workforce
- Provide an example of an approach that works to address the new basic skills training with an emphasis on technology literacy training

To understand how a technologically illiterate workforce impacts the economy of the United States, consider the comments made by Dr. Lester Thurow at a recent conference of City Managers. "At the end of World War II we were 75% of the World GNP. As late as 1960 we were 50% of the World GNP. Today we are just 23% of the world GNP. If you think about what is the competitive edge that any country has, it's something that's under your jurisdiction. The thing about which we compete [in the world] is, What's the quality of the local workforce in terms of education and skills? . . . if you look at the education and skills of our workforce, we just don't match up very well."[1]

In the nineteenth century, during the Industrial Revolution, the United States experienced rapid growth and became the leading industrialized nation in the world. The availability of an educated workforce proved to be an important aspect of that success. Consider the following analysis of American industry during the 1850s:

> "A fourth reason offered by British observers to explain American economic efficiency was an educational system that had produced widespread literacy

> and 'adaptive versatility' among American workers. By contrast a British workman trained by long apprenticeship 'in the trade' rather than in schools lacked 'the ductility of mind and the readiness of apprehension for a new thing' and was 'unwilling to change the methods which he has been used to,' according to an English manufacturer."[2]

Compare this observation with a recent statement made by Former U.S. Secretary of Labor William Brock: America needs an educational system with "much more emphasis on flexible training that allows people to adapt to technologies as they constantly change around them in the work place."

This remark has been hailed as innovative and visionary but we can see it is simply returning to the educational precepts and values that were originally responsible for America's industrial development. What is required of America's educational system today?

I frequently hear discussion as to the purpose of education. Should education respond to business pressures and prepare students for specific jobs or should education prepare students for the future in which they will live? Alan Bloom in *The Closing of the American Mind* observes how "A highly trained computer specialist need not have had any more learning about morals, politics or religion than the most ignorant of persons." Those believing education should provide a more liberal arts background should take note of the recent statements made by industry leaders. It appears the ultimate goal of educators and industry's perceived need in its entry-level workforce are merging. David Kearns, Chairman and CEO, Xerox Corporation stated, "Indeed, the last thing Xerox and other high-tech companies need is vocational education. We need employees who are broadly and deeply educated, men and women who are 'liberally' educated."[3]

I am concerned that Kearns' statement regarding vocational education is an example of a polarization which is occurring in the education field. Compare Kearns' comment with one made by Charles H. Buzzell, Executive Director of the American Vocational Association, "Reading the popular press, it is easy to come away with the feeling that traditional vocational education programs are no longer appropriate at any level. . . . What absolute nonsense! Contrary to what some would say, employers large and small expect us to prepare students to arrive on the job ready to be productive."[4] I believe both gentlemen are correct. We need a vocational education system which delivers the new basic skills industry needs, but in an applied technological setting, and we need the general education system to adopt creative instruction in applied math, physics, and science.

The New Definition of Literacy

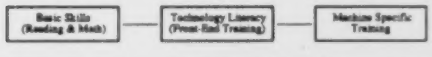
We must put into perspective the "widespread literacy" which the British observers identified in the United States during the 1850s. At that time, the commonly understood definition of **basic literacy** was being able to read and sign your own name. That notion was followed by a definition of **simple literacy** which included being able to read and comprehend short sentences. Brock's suggestion that we graduate workers who can adapt to technologies as they change around them in the workplace requires a much higher level of literacy than was found in the "adaptive versatility" of the American workers in the 1850s. This level of literacy is referred to as **functional literacy**.

Functional literacy includes the basic academic skills as well as knowledge in the areas of personal and interpersonal skills, communication, comprehension, quantifica-

tion, critical thinking, and technology literacy skills. In addition one must be able to apply those strategies that permit individuals to adapt information and skills for use in unfamiliar as well as familiar situations and contexts.

In the past, this combination of skills was seen as representing two distinct levels of skills — basic and higher-order. Today both skills are necessary. Together they will be referred to as the new basic skills, skills required for jobs we traditionally considered lower-level.

Our experience with today's American workforce suggests that effective technological training must have three components: *basic skills* training (reading comprehension and math skills), *machine-specific* training, and training to bridge the gap between



them. This intermediary training is *technology literacy* (front-end training).

Analysts have identified the lack of both basic and technology literacy training as a major problem in successfully implementing automated manufacturing. Roger Smith, chairman and chief executive officer of the General Motors Corporation, admitted that GM has to implement more "upfront education and training of our workforce before high technology is introduced."[5] A two-year federal study commissioned by the National Academy of Engineering and released on June 17, 1987, also identified the lack of technology training programs.

The comprehensive objective of technology literacy training is to produce workers who do not have to be "retooled" as technology changes. Such an outcome provides greater use of existing human resources, and also brings the most effective return on expenditures for training resources.

To achieve this objective, we need a new way of thinking about learning. Because technology will continually change the worker's job, the worker will have to master new information and skills continually as well. Our concept of training must also move beyond that of training workers in single, static skills to one of preparing workers to function in complex, ever-changing environments.

The skills we are talking about here are generic and transferable; in a word, they are *employability skills*. We can identify four distinct kinds:

Traditional basic skills
Problem-solving skills
Teamwork skills
Technology Literacy

Traditional Basic Skills

Historically, providers of machine-specific training failed to identify the critical enabling skills needed to understand their training. For this reason, as training for automated equipment was introduced in this country during the last decade, the basic skills problem surfaced. Many adults in the workforce today do not have the necessary math, reading, and study skills needed to cope with the training for this new technology.

ACTT training begins with a criterion-referenced diagnostic assessment procedure that determines whether entering trainees have the necessary math, reading, and study skills to understand and work with the curriculum. In addition, a second assessment procedure assists ACTT in evaluating each trainee's technology literacy and readiness to undergo machine-specific training.

ACTT has incorporated a diagnostic assessment procedure to assist in identifying trainees' areas of need and guide them toward *targeted remediation*. This step is most important for guaranteeing successful mastery of the technology literacy curriculum. This allowed us to design the diagnostic procedure that provides trainees with inventory assessments of their math and reading comprehension skills as they relate to the technology literacy curriculum. A few of the specific math skills we assess include: Adding and subtracting three-digit numbers, identifying polygons, and understanding the X,Y coordinates.

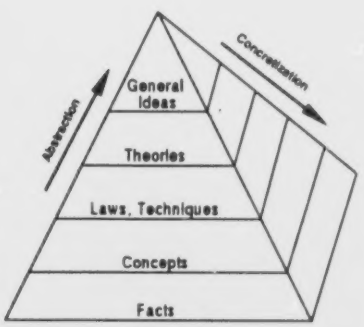
We believe specific math and reading skills should be remediated as needed, at the time when the subject matter is introduced in the technology curriculum. This approach differs from separate or up-front skills training. Although there is on-going discussion in the educational community about this integrated approach to remediation, ACTT has had very positive outcomes in its JTPA-funded high school dropout programs. The ACTT approach neutralizes potential sensitivity a learner may have toward remediation, and doesn't withhold the motivating opportunity to work directly with the technology workstation.

Trainees who lack specific reading or math skills that will be required to master the training modules are referred to appropriate instructional materials for targeted remediation. Trainees will also be trained in Individualized Self-paced Instruction techniques to ensure their acquisition of the basic skills necessary for success in the technology literacy program.

Problem-solving Skills

The ability to process information using abstract problem-solving skills (what Piaget defined as the fourth level of thinking[6]) is critical for workers in a high-tech workplace. In a study performed at the Center for Reemployment Services (CRS) in Charleston, South Carolina, researchers concluded, "Concrete thinking patterns . . . can make a person unemployable and eventually unable to survive in a high-tech world that increasingly calls for abstract thinking skills.

"Educators have assumed that people advance from concrete to abstract thinking by their early teens, but several psychological researchers have recently concluded that between 50 percent and 70 percent of adults have not achieved fourth-level thought."[7] ACTT's technology literacy training is based on a classical educational model of how human beings reason called the "thinking pyramid." This model produced a design for technology training that goes beyond skills and procedures to prepare workers to respond to changes in their working world.



The thinking pyramid epitomizes problem solving. We move up, down, or around the levels of thinking shown on the faces of the pyramid, with the back faces representing different, but related, topics. In problem solving we move upward from concrete data to work out procedures, form theories, and draw abstract conclusions. We move back

down to more concrete thinking when we consolidate information, apply it to a problem, and test our solution. When we teach people these analytic skills along with, and applied to, technical information, they learn to solve existing, as well as new, problems by using their own internal problem-solving resources.

Educators are frequently criticized today for teaching just facts. Ironically, a primary objective of our front-end training is to graduate workers who can learn from facts and apply those facts to new processes or machines. By graduating workers who are comfortable with moving up and down this learning pyramid, you are graduating workers who can digest facts and require significantly less on-the-job training each time new machines or processes are introduced. Motorola Director of Training William Wiggenhorn explained why it cost more to teach Statistical Process Control to American workers than it cost to teach the same process to Japanese workers. "The Japanese simply hand their employees a book. American workers must first learn to read."[8]

ACTT has experienced significant success in developing these abstract problem-solving skills through a modular, hands-on, systems approach to teaching technology literacy. Trainees begin to develop problem-solving skills two-dimensionally using the LOGO programming language on the computer. This language provides immediate concrete results (movement on the screen) from abstract instructions. Too often in our educational experience we have been led to believe that there is a right answer and a wrong answer to a problem. Lauren Resnick, in her definition of higher order thinking skills included — "Yielding multiple solutions."[9] Seymour Papert discovered in the early seventies that LOGO overcame this "got it" or "got it wrong" barrier by teaching students to ask the question: is it fixable?[10] LOGO also permits the mastery of several skills simultaneously through parallel or incidental learning. These skills include: basic math, geometry, problem-solving, as well as computer programming concepts.

The advanced portions of the curriculum build on this Logo programming foundation by incorporating hands-on assignments with elements of technology (robots, sensors, stepper motors, servo motors, pneumatics, and logic control) to further develop the basic and higher order thinking skills. In each assignment within the curriculum, some part of the hands-on workstation is used to master the objectives of the module. In essence we utilize an exciting "carrot" which holds the trainees' interest and tie the conceptual to the concrete. LOGO is the "carrot" in the early phases of the material, while the robot or sensors become the "carrot" in the more advanced phases of the material.

Teamwork Skills

Michigan Governor James J. Blanchard convened an Employability Skills Task Force in November, 1987, and charged it with identifying the generic skills and behaviors employers believed to be important across a broad range of business, service, and industrial sector jobs. The task force identified the following skills profile for teamwork skills :

TEAMWORK SKILLS

(Those skills needed to work with others on a job)

MICHIGAN EMPLOYERS WANT A PERSON WHO CAN:

- Identify with the goals, norms, values, customs, and culture of the group.
- Communicate with all members of a group.
- Show sensitivity to the thoughts and opinions of others in a group.

- Use a team approach to identify problems and devise solutions to get a job done.
- Show sensitivity to the needs of women, and ethnic and racial minorities.
- Be loyal to a group.

These required teamwork skills impose significant changes on the methodology of training in the classroom. For example, we encourage two people to a workstation in the beginning modules of our curriculum. During the more advanced projects we encourage three people to a workstation. Time is spent during our train-the-trainer program to instruct trainers on building groups, rotating the participants of each group during the course of the program, and dealing with problems that surface between members of the group. After all, is it reasonable to continue to insist that trainees work one-on-one at computer terminals or interactive video systems when the real world wants workers with strong communication and teamwork skills?

An example of the results from learning in groups surfaced during a JTPA-funded summer youth program at Washtenaw Community College, located in Ann Arbor, Michigan. The program consisted of ten economically disadvantaged youth between the ages of fifteen and eighteen exposed to our curriculum and methodology. Four of the participants were runaways from Detroit staying in halfway houses in Washtenaw County. When asked what's the most important thing you've learned from the program, apart from the technical content?, one student responded, "Teamwork . . . Sometimes we disagree on how to solve a problem, so we try it both ways. We've learned that getting the right end result is more important than someone's pride getting in the way of cooperation."[11]

Technology Literacy

As I stated at the beginning of this presentation, one of my objectives today is to heighten your understanding of technology literacy training. I would now like to focus on the middle box of our three-box model, technology literacy training.

Michael Dyrenfurth of the University of Missouri jokingly defines a technologically illiterate person as one whose video tape recorder is still blinking 12:00 PM. But what does it mean to be technologically literate? First of all, let me clarify an important point. Being computer literate alone is not sufficient reason to be considered technologically literate. Too often in this country we teach our students a few lines of basic programming, a spreadsheet, and/or a word processor, and sit back and marvel at how technologically literate our students have become, or we use the computer as a tool in the learning process, or computer aided instruction (CAI) as it is called. While this may aid in the learning process it is not necessarily adding to the technology literacy level of the student. Let's not confuse instructional technology with technology instruction. Computer literacy is a part — but a small part — of technology literacy.

As defined by the Engineering Concepts Curriculum Project at the Polytechnic Institute of Brooklyn, a technologically literate person:

- Can use the decision-making process effectively.
- Can make valid predictions from models.
- Can use models to simulate real situations.
- Can use optimization techniques in making real world decisions as well as in classroom situations.
- Can demonstrate how feedback is used to control social, political, economic, ecological, biological, mechani-

cal, and technological systems.
- Can predict from models when a system might become unstable.
- Can communicate with machines so that he or she uses the machine effectively.
- Is familiar enough with logic and logic circuits to understand that complex computers are made from simple circuits.
- Is willing to use the tools of technology to attempt solutions to real problems.
- Probes for causal relationships between science, technology and society.
- Questions the possible effects of technological "improvements" on the environment.
- Weighs the relative merits and risks of new products and processes.
- Recognizes the development of criteria and stating of constraints as subjective activities.
- Recognizes that technology will create entirely new possibilities for society. As a result the world will be a different place to live in the future, and that only knowledge of both technology and humanity can insure that it will be a better place to live in.[12]

The preceding characteristics provide an excellent listing of many of the skills required of a technologically literate person. Understanding the explanation of the four generic employability skills, I would like to suggest a guideline for technology instruction.

- Supporting Subjects — physics, mathematics (equations, geometry, algebra, and binary numbers), and systems.

- Electronics — basic logic elements, electronic components, circuits, analog and digital sensing devices.

- Computers — Operating system, programming, memory-mapped input/output.

- Robotics — robot programming, drive systems (servo motors, stepper motors, pneumatics, and hydraulics), coordinate systems, end-effectors, machine vision, computer control.

- Applications — integration of automation, applications criteria, artificial intelligence.

- Social and Economic Issues — historical survey, impact of technology (on work environment, individuals, and society), microeconomics, and macroeconomics.

Guide on the Side Rather Than a Sage on the Stage

One of ACTT's functions is to train trainers, rather than to provide training directly. The methods an instructor uses can facilitate the technology literacy learning process dramatically. We like to say that the trainer we graduate acts like "a guide on the side rather than a sage on the stage."

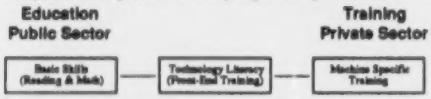
Instructors must be comfortable in situations where trainees have more control over the learning process. Instructors cannot be threatened with classrooms where the trainees may have more first-hand knowledge of the content than the instructor.

Remember, Einstein was removed from school because he continued to ask questions that his teachers could not answer. We can be thankful that Einstein's mother encouraged him to continue asking those questions. The same is true for the technology literacy instructor. It is imperative that instructors encourage students to go beyond the restraints of formal curricula. Instructors

who can encourage trainees to release their intuitiveness will find the learning process proceeds further and faster than imagined.

Public or Private Funding

The final issue to discuss is the funding source for technology literacy programs. Is this kind of training an extension of one's basic skills and therefore the responsibility of the traditional education system? Or is this training job related and therefore the responsibility of the employer to provide?



The three-box model described earlier shows easy solutions for the left and right boxes. Most people are in agreement that the box on the left is called "education" and the public sector of the economy is responsible for its funding. The box on the right is called "training" and the private sector (employer) is responsible for its funding. The box in the middle is not as easy to describe. To some it is personal enhancement and to others it is job-related.

The skills included in the characteristics of a technologically literate person are skills which should be mastered upon graduation from high school. However, as long as we are dealing with a current workforce which is deficient in these skills, some form of joint partnership must be developed by industry, government, and the individual, to provide this training.

We can see the importance of a technologically literate workforce on the American competitiveness. It is up to all of us to explore new ways with which to achieve our goal of a technology literate America. Only through cooperation among the various segments of the public and private sectors can we truly succeed in the monumental endeavor.

1 Excerpt from The Zero-Sum Solution, delivered at the 73rd Annual Conference, International City Management Association, Montreal, Canada, October 25-28, 1987, Lester C. Thurow, Professor and Dean, Sloan School of Business Administration, Massachusetts Institute of Technology.

2 McPherson, James M. , Battle Cry of Freedom, The Civil War Era (New York: Oxford University Press, 1988), pp. 18-19.

3 Kearns, David T. & Doyle, Denis P., Winning The Brain Race (San Francisco: Institute for Contemporary Studies, 1988), p. 4.

4 Buzzell, Charles H., "Job-specific Skills: A Renewed Commitment," Vocational Education Journal, August, 1988, p. 8.

5 "GM to Change Development Of Technology," The Wall Street Journal, July 28, 1986.

6 Papert, Seymour, Mind Storms (New York: Basic Books, Inc., Publishers, 1980), pp. 156-164.

7 Cameron, Carolee, "'Logo Leads Adults to Fourth-level Thought," Education Computer News, February 25, 1987, pp. 5-6.

8 Perry, Nancy J., "The Education Crisis: What Business Can Do," Fortune, July 4, 1988, p. 72.

9 Resnick, Lauren B., 1987 Presidential Address, "Learning In School and Out," Educational Researcher, December, 1987.

10 Papert, Seymour, Mind Storms (New York: Basic Books, Inc., Publishers, 1980), p. 23.

11 "ACTT a Big Success with JTPA Summer Youth Program," ACTT Now Newsletter, October, 1988, p. 1.

12 Liao, T., & Piel, E. (1970). Toward technological literacy, Engineering Concepts Curriculum Project newsletter, IV (2), pp. 2-4.

URBAN MINORITIES AS NATURAL RESOURCE PROFESSIONALS THE BLM/WAYNE COUNTY COMMUNITY COLLEGE MODEL

BY: LARRY HAMILTON
SANDY AUSTIN
BARBARA HOLLWAY

Abstract

As part of its program to increase minority and women employment opportunities, the Bureau of Land Management (BLM), Department of Interior, participated in a program with Wayne County Community College (WCCC), Detroit, Michigan, to develop and instruct classes in natural resource management. Eight BLM instructors designed and taught two courses at WCCC during the winter and fall semesters of 1989: (1) *Public Policy and Federal Land Use Management*, and (2) *Environmental Conservation on Federal Lands*. WCCC students completing this curriculum with a 2.5 or better grade average can transfer directly to the University of Michigan's Natural Resource Baccalaureate Degree program. Initial student and faculty feedback has been extremely positive, but the program will need to be evaluated thoroughly after 3 to 4 years to determine if it continues to meet BLM objectives. Many other colleges and universities with high minority enrollments have expressed interest in the program, which will serve as a model for similar efforts.

Introduction/Background

Executive Order 12320, signed by President Reagan on September 15, 1981, and Executive Order 12677, signed by President Bush on April 28, 1989, direct federal agencies to increase opportunities for historically Black colleges and universities (HBCUs) to participate in federally sponsored programs. These Presidential orders also require federal agencies to prepare annual plans for assisting HBCUs.

In October 1988, few Black men or women were employed by the Bureau of Land Management (BLM) in range conservation, general biological science, or forestry occupations. To help remedy this situation, BLM's Affirmative Employment Program (AEP) Plan recognizes the need to reach out to minorities by assigning more BLM employees (under the Intergovernmental Personnel Act) to teaching positions at historically Black colleges and universities and other institutions with high minority enrollments. The AEP also instructs BLM to continue using its Cooperative Education Program to increase the number of minorities and women in professional occupations.

Recognizing the current under-representation of minorities in all natural resource fields in our organization and the lack of qualified minority candidates, BLM began a program to increase representation of Black professionals. In 1987, representatives from the BLM Washington, D.C. Headquarters Office attended a "Historically Black Colleges and Universities" conference in Birmingham, Alabama. In attendance were presidents and administrators of 2-year colleges, meeting to devise strategies for integrating students from 2-year programs into 4-year programs.

Encouraged by the conference, BLM joined a cooperative effort with Wayne County Community College's (WCCC, Detroit, Michigan) newly developed Natural Resource Associate

Degree program. BLM agreed to design instruction for two 3-credit hour natural resource courses—101 - *Public Policy and Federal Land Use Management* and 201 - *Environmental Conservation on Federal Lands*—and to provide instructors who would begin teaching classes during the winter semester of 1989. Furthermore, under an articulation agreement with the University of Michigan, Ann Arbor, WCCC students with grade point averages of at least 2.5 in two natural resource courses could transfer directly to the University of Michigan's Natural Resource Baccalaureate Degree program.

Program Development

BLM recruited employees to teach at WCCC through an internal memorandum to all field offices. The University of Michigan and WCCC required those participating in the program and qualifying as adjunct faculty have at least a master's degree, and BLM required that participants be full-time employees.

In July 1988, eight BLM employees were selected to serve on the original instructor team. The following October, the team attended the Phoenix Training Center's Instructor Seminar, a 1-week course teaching how to design and instruct lessons using participative methods. After this training, the team met with WCCC staff members to determine course objectives, outline the eight units for Course 101, and prepare action plans for the remaining tasks. Course outlines were submitted to WCCC for course accreditation, and team members completed designing the instruction at their home offices. Each of the eight team members was responsible for designing and presenting lessons covering a 2-week session of the 16-week semester. The team signed Intergovernmental Personnel Act (IPA) agreements to become WCCC adjunct faculty beginning in the winter of 1989.

In early January 1989, the BLM instructors met with staff from WCCC and University of Michigan, attending an orientation session and a reception in their honor. Also during this meeting, the instructors prepared course objectives and an initial outline for Course 201, to be offered in the fall of 1989.

BLM instructors planned their travel to and from Detroit for the winter semester, and an apartment was leased for the semester at Trolley Plaza, about 1 mile from campus, allowing instructors to stay in a central location and have the benefit of each other's notes and comments about students. BLM instructors also kept a running record of each student's test scores.

The team devised a system of computing grades in which instructors designed and conducted a 100-point test at the end of each of the seven 2-week sessions. Students were permitted to drop the lowest of the seven scores, and the final semester grade consisted of the average of the remaining six scores.

Two sections of the 3-hour Course 101, *Public Policy and Federal Land Use Management*, were offered during the winter semester. Each instructor taught a daytime and an evening class during their 2-week session. In addition, one instructor led an optional Saturday field trip to Pelee National Park in Canada to identify birds and examine the use of different habitat types. Twenty-five students completed the course. Both students and instructors evaluated each 2-week session.

During the summer 1989, five WCCC students volunteered to work for 2 weeks at BLM field offices. BLM paid $200 each for their transportation from Detroit to the site (one to Oregon, four to Wyoming), where they lived in BLM housing. The Wyoming volunteers spent 2 days at the annual meeting of the Wildlife Society in Teton Park, Wyoming, learning about fire ecology in Yellowstone National Park. For the remainder of the 2 weeks the Wyoming volunteers monitored riparian zones and conducted stream channel morphology studies. The volunteers found their experience to be valuable, and some expressed an interest in making natural resource management a career. Course 201, *Environmental Conservation on Federal Lands*, was designed by the same adjunct faculty team as Course 101 and is being taught in the fall 1989 semester along with Course 101. The teaching of two sessions each of Courses 101 and 201 in Fall 1989 has resulted in an excessively heavy schedule for the instructors. Every class is being taught on Tuesdays and Thursdays, and instruc-

tors are having to teach from 10 in the morning to 10 at night with little break time. This burnout problem can be avoided by the early planning of a reasonable schedule. The winter session has a much better schedule.

Since BLM planned to phase out and replace the original instructors, a second memo soliciting instructors was sent to BLM field offices in April 1989. Over 30 applicants responded. As other institutions express interest in such cooperative efforts, more BLM employees will need to be trained as instructors.

BLM's original intent was to remain active in the program with WCCC until 1992, when WCCC would hire a natural resource professor to teach the curriculum. BLM would then retain ownership of the course materials, authorizing WCCC to use the lesson plans to teach the courses. BLM, however, expects to remain involved through the Cooperative Education program and recruitment of University of Michigan graduates.

For this effort to be successful, the Cooperative Education Program (Co-op Ed) must be emphasized and implemented. The Bureau's Co-op Ed Program hires students intermittently as paid employees when they are not attending college. This program lets BLM provide a productive work experience and allows the student an opportunity to preview the Bureau as a potential employer. Under this program, students are screened at their colleges, interviewed for designated positions, and if selected sign an agreement with BLM. Although BLM is not required to employ the student after graduation and completion of the Co-op Ed program and the student is not obligated to work for BLM, the intent of cooperative education is to have the student work for the Bureau.

The Volunteer program also helps students decide whether to work for BLM. Although volunteers are not paid salaries, BLM can reimburse them for travel and living expenses. Because the Volunteer program does not require an agreement with the college, BLM can accommodate many more students without a commitment at such an early stage in the student's experience. The listing in Figure I compares the differences between the Co-op Ed and Volunteer programs.

Results and Observations

The following are results of and observations from the first year of the BLM-WCCC natural resource program.

- Comments from students and instructors on Course 101 were extremely favorable. Recommendations for revising individual sessions will be incorporated before the course is offered again.

- Although WCCC and the University of Michigan gave tremendous support for the program, the program needs a written document listing specific tasks and responsibilities for all involved. An agreement to provide administrative support, including grading procedures, and logistical needs would have eased the load on BLM instructors.

- Externally, the publicity for the program included a news release, a televised press conference and participation in a televised round table discussion. To increase visibility of the program within BLM, we plan to publish newsletter articles and produce a short news story for the BLM Video Magazine.

- The adjunct faculty would like to add a lab to Course 101 beginning in fall of 1990. One credit hour would be added to the course, and 4 hours would be added to each 2-week session. Lab exercises could include field trips, tours, indoor lab exercises, and visits to museums or University of Michigan graduate projects.

- The BLM Washington D.C. Office asked the Phoenix Training Center to formally produce the lesson plans developed by the adjunct faculty. Final lesson plans need to be prepared to help new instructors entering the program. In addition to submitting lesson plans and outlines, BLM instructors are audio taping their presentations during the fall 1989 semester.

FIGURE I Differences between the Volunteer and Cooperative Education programs

Cooperative Education	Volunteer
Agreement needed between BLM and institution.	No formal agreement needed.
Student and BLM sign contract.	Student and BLM sign volunteer services agreement.
Students apply and are appointed competitively.	Students apply and are appointed non-competitively.
Limited number of positions in BLM.	Unlimited opportunities for volunteers than for co-op ed students.
Student must pay first-time travel to worksite.	BLM can reimburse travel and accommodations (housing & food).
Salary paid (usually starts at about $5.50/hour).	No wages can be paid.
Neither student nor BLM is obligated to continue agreement, but placing student in permanent, full-time position is goal of program.	Neither student nor BLM is obligated to continue agreement; placing volunteer in a full-time, paid position is not goal of program
May apply work experience for college credit.	May apply work experience for college credit.
Formal performance evaluation system.	Formal performance evaluation system.
Obligates a position.	Does not obligate a position.

These tapes will give Training Center education specialists another tool to help document classes taught if information is missing from the original lesson plans.

- BLM's internal budgeting process for this project needed some revision. Although we had the support of local field managers, a separate budget account managed at the headquarters level would increase effectiveness. An estimated $200,000 will be spent through fiscal year 1990—from the initial idea to course design, implementation at WCCC, and production of final curriculum. The projected yearly costs; for the program in the future are approximately $75,000.

- Florida A&M and other institutions have expressed interest in this program. BLM intends to continue to establish this or similar programs at other institutions with high minority enrollment.

- Most of the current adjunct faculty will continue to teach at WCCC during the fall of 1989 and probably the winter of 1990. If an additional agreement is made with another institution for the winter semester, eight new faculty positions will need to be filled. Instructors will be selected on the basis of each individual's experience in the subject matter being taught.

- o BLM anticipates recruiting women and minority candidates for additional adjunct faculty positions. The existing requirement of a master's degree to be eligible to instruct may be a barrier to recruiting qualified women and minority instructors. We would recommend that work experience be substituted for the graduate degree requirement.

- o BLM plans to evaluate this program after a 3 to 4 year period to reconsider costs and benefits. Students who take these courses will need to be tracked to determine if they earned a degree in natural resources from the University of Michigan and obtained a job with BLM or other agency in natural resource management. The evaluation will determine if the program continues to meet BLM objectives?

Summary and Future Direction

PBLM will continue to pursue the goal of increasing the number of minorities and women in professional occupations in its ranks until it achieves parity in the workforce. The experience with WCCC and the University of Michigan will serve as a model for other efforts to establish programs for recruiting minorities and women into the natural resource fields and eventual employment in BLM. Although historic demographic data shows that managing natural resources typically has not attracted a large percentage of women and minorities, a major means of rectifying the past is to establish working agreements with colleges and universities. These agreements will give students an opportunity to consider a career in natural resource management during their first or second year of college. The continuation of the program and future direction will depend on the number of students who eventually elect to pursue a career in BLM. Our experience with WCCC reinforces the fact that urban students are not aware of the career opportunities in the natural resource fields. To attract minorities to these fields will require an ongoing educational effort throughout the United States.

PROVIDING TECHNICAL TRAINING FOR WOMEN AND MINORITIES: AN OHIO PARTNERSHIP

DANNY L. EVANS AND GARY D. GULKER

Abstract

Shawnee State University, a small university in rural, south-central Ohio, joined together with a government agency and a large private corporation to develop and implement a women and minority training program which would prepare participants for technical entry level positions. The program, "Technical Operator Training for Women and Minorities", was designed to assist the corporation in accomplishing its affirmative action employment goals. The purposes of the training program were threefold: (1) to expand recruitment sources of women and minority applicants in technical operations positions, (2) to stimulate minority interest in careers where there was low participation, and (3) to encourage the interest of women in careers which have been traditionally considered "male oriented" career fields. The goal of the program was to provide participants with a four-course series (Electro Concepts, Basic Algebra, Fundamentals of Physics, and Fundamentals of Chemistry) required for "Chemical Operators" certification. Pre-assessment of the applicants utilizing ASSET, an academic assessment instrument designed by ACT, was done to identify strengths and help serve as a screening tool for candidates. Participant training consisted of regular college coursework (two courses per quarter) supplemented by a mutually supportive atmosphere--a "soft touch" approach which included the development of study skills, individualized instruction, small group tutoring services, and career counseling. The training was designed to provide maximum instruction while maintaining the individual contact so essential in working with the disadvantaged population. Participants renewed old skills and became acquainted with new ones as they developed general technical knowledge and became more competitive in today's technological job market.

Background

The south-central area of Ohio is basically rural--small towns separated by hilly woodlands and farmland. As part of Appalachia, the region is characterized by: high unemployment rates, a high incidence of poverty, a deep family orientation, and a strong work ethic .

According to the 1980 Census report and the most recent estimates of the Ohio Employment Services, Portsmouth, the largest city in the region has a population of about 26,000. The three-county region (Lawrence, Pike, and Scioto) population total is approximately 170,000. The minority population of 4650, mostly Black, represents only about 3 percent of the total. The labor force totals 62,100 workers of which 12 percent are unemployed. Of the 1550 minorities in the labor force, 215 (or about 14%) are unemployed. Consequently, although unemployment rates are higher for minorities, such small numbers from which to recruit have created problems for businesses and industries trying to meet affirmative action goals.

Shawnee State University in Portsmouth, was created by an act of the Ohio Legislature in 1986. With roots as a regional campus of another Ohio university, as a technical college, and as a community college, Shawnee State has evidenced a strong commitment to community service.

By helping to define the purposes and objectives of life-long learning and community service, the institution, through the Office of Continuing Education, assumes the leadership role in the educational and economic revitalization of region. Programs are designed for kindergarteners and senior citizens, dislocated workers and business managers, and high school dropouts and college graduates. Moreover, continuing education and community service is a cooperative venture which relies upon public interest and participation from individuals, organizations, schools, businesses, and

industries, to reach its fullest potential.

To accomplish the University mission of providing opportunities for continuing personal and professional development, the following goals were developed:

1. To identify continuing education needs of individual, organizations, and community groups within the service region.
2. To endeavor to respond to developing community and regional needs with educational services and programs.
3. To provide variety in programming formats utilizing the resources of the university.
4. To increase the accessibility of education services to all persons of the community and the region throughout their lifetimes.

The staff of the Office of Continuing Education and the Center for Business and Industry devotes much time in developing cooperative partnerships with government agencies and business and corporate clients. These relationship building efforts or networking linkages provide open avenues of discussion which lead to collaborative training efforts. This presentation focuses on the cooperative endeavors of the university, a government agency, and a private corporation as they identify training needs and develop a program to meet those needs.

Program Description

A representative of a large corporate client of the University contacted the Office of Continuing Education with a modest request: assist us in the development of a training program which will target women and minorities. Because of this expressed need, a joint meeting was quickly planned. Appropriate representative from both organizations, as well as, local JTPA officials were invited to participate in the preliminary discussions.

The initial meeting focused on three major areas: (1) the Affirmative Action goals of the company were defined in terms of specific employee needs, (2) the appropriate training program to meet minimum qualifications for job entry was outlined and expanded, and (3) a strategy for recruitment of targeted population groups was established and a mechanism to finance participants was put into place.

Since workers entering this job classification were already required to complete a four-course series at Shawnee State University, the client company would require the same series of the new trainees. This "technical operator" training had been previously offered to a number of current employees, employees on lay-off status, and other persons interested in working for the company. Previous classes over the past nine-month period had netted over 300 total student participants. However, few minority students had been attracted.

The University's experience with these four classes indicated that most of the participants were adults,over the age of 25, who had been away from the educational setting for a number of years. Consequently, many of them had a difficult time with the coursework. While the failure rate was not exceptionally high, a number of complaints were noted as to the academic rigors of the work. However, the fact was that two of the four courses were developmental or "pre-college preparatory in nature and the other two were basic freshman courses.

All three partners agreed that to produce a successful program for women and minority participants would require some alterations in training methods. Therefore, the University proposed several changes in the curriculum delivery without changing the content. First, pre-assessment testing of the candidates would be necessary to identify those with the greatest potential to complete the coursework. Second, to further ensure their success, participants would be provided with additional support in the way of individualized instruction and small group tutoring. Finally, individual counseling and guidance services would be added to increase career awareness and potential for career growth.

The Scioto County JTPA service provider proceeded to identify possible students from their pool of eligible candidates. These trainees would be provided the training at no personal expense; JTPA would pay associated costs. Potential candidates who did not meet JTPA guidelines were also presented with the training opportunity. However, these persons would be required to pay the accompanying tuition and fees. Because of low number of minorities in Portsmouth and Scioto County, neighboring counties were contacted about participating in

the program. After the initial screenings 30 student candidates were identified and an assessment was accomplished through the ASSET testing program.

The ASSET program, developed by ACT, is a guidance-oriented assessment program combining measures of academic skills with educational planning information. With measures of appropriate advising, assessment results can be related to the content of available courses to facilitate educational planning by the individual student.

The following uses of the ASSET assessment results are suggested:

1. ACADEMIC PLANNING AND ADVISING. The ASSET program can be used to aid students in identifying their educational backgrounds, plans, needs, and skills; communicating this information to the institution's advising staff; and choosing educational paths (including programs/majors and specific courses) appropriate to their skills and objectives.

2. COURSE AND SELECTION AND PLACEMENT. The ASSET program can be used to help institutions and students in making informed decisions regarding course selection.

3. CAREER EXPLORATION AND PLANNING. The ASSET test battery can be viewed as a first step in a career counseling services which can be enhanced through completion of other career exploration activities. As a follow-up to the test administration, the counselor can discuss the results with the student in order to identify, assess, and explore relevant career options.

Basic Skills Test

The ASSET WRITING SKILLS TEST is a 36-item, 25 minute test that measures the student's understanding of the conventions of punctuation, grammar, sentence structure, strategy, organization, and style of standard written English. Spelling, vocabulary, and rote recall of rules of grammar are not tested. The test consists of three prose passages, each of which is accompanied by a sequence of 12 multiple-choice test items. A range of passage types is used to provide a variety of rhetorical situations. Items that measure usage and mechanics offer alternative responses, including "no change," to underlined positions of test. The student must decide which alternative employs the conventional practice in usage mechanics that conforms to the sense of the context.

The READING SKILLS TEST is a 24-item, 25 minute test that measures reading comprehension as a product of skill referring and reasoning. The test items require students to derive meaning from several texts by (1) referring to what is explicitly stated and determining the meaning of words through context and (2) reasoning to determine implicit meanings and to draw conclusions, comparisons, and generalizations. The test consists of three prose passages of about 375 words each that are representative of the level and kinds of writing commonly encountered in college freshman curricula. Passages on topics in prose fiction, business, and the social studies are included. Each passage is accompanied by a set of eight multiple-choice test items.

The ASSET NUMERICAL SKILLS test is a 32-item, 25-minute test designed to assess basic numerical skills in the performance of operations with whole numbers, decimals, and fractions, and basic problem-solving skills involving arithmetic.

The elementary algebra portion is designed to assess skills commonly acquired in the first high school algebra course. The content areas tested include evaluation of algebraic expressions, simplification of algebraic expressions, exponents, rational expressions, and solution of linear equations.

At the conclusion of testing all scores percentile rankings and national mean scores were reviewed by the University and the client company. Eighteen (18) JTPA eligible and four (4) non-JTPA students were selected to participate in the training program.

The client company provided a team to interview the selected candidates for training. Following the interview these candidates were immediately placed into a priority hiring process, contingent upon the satisfactory completion of training, a satisfactory check of references, the satisfactory completion of a physical examination (including a drug and alcohol screening) at the plant hospital and, because the client company is doing government contract work, a satisfactory check for a full security clearance. The "Q" clearance usually takes twelve to fourteen months to complete.

The goal of the program was to have students successfully complete the four-course (electro concepts, basic algebra, fundamentals of physics, and fundamentals of

chemistry) series required by the client company for "chemical operators" certification with a grade of "C" or better.

The four courses consisted of regular college coursework, supplemented by a mutually supportive atmosphere. The "soft touch" approach included development of study skills, individualized instruction, and small group tutoring services. Classes were conducted over a two-quarter period, Spring and Summer 1989. Two courses per quarter were offered. Students attended classes two days per week and spent a third day in supplemental support services with a tutor. Since some participants were already employed and others had children, classes were held in the evening to better accommodate their schedules. Students spent two hours in each class session, two sessions per evening.

The four basic areas of study required by the client company for operator-training certification are outlined below.

ELECTRO-MECHANICAL CONCEPTS is a survey in the basic concepts of electricity and electronics. Basic DC circuits are studied as the concepts of Ohm's law, resistance, capcitance, inductance, power, and energy are introduced. AC circuits involving reactance, impedence, phasors, and power factors are studied. A superficial study of elementary solid state electronics is offered (4 credit hours).

BASIC ALGEBRA is for students with a sound background in arithmetic but little or no background in algebra. It includes operations with integers, numbers, properties, scientific notation, solving and graphing linear equations and inequalities, operations with polynomials,laws of exponents, and laws of radicals (4 credit hours).

FUNDAMENTAL PHYSICS is designed for those students with an inadequate background in physics or higher math. Several physics topics and the mathematical methods to study these topics are covered. Topics include the metric system, unit conversion, and vector analysis of forces in motion. An introduction to laboratory procedures and report writing is included (4 credit hours).

FUNDAMENTAL CHEMISTRY is designed for those students with an inadequate background in chemistry. Topics and material presented are intended to increase the students familiarity with terms and chemical process (4 credit hours).

Conclusions

In the final analysis the program was deemed a success. Although only 10 of the 22 students who began coursework have completed it with a grade of "C" or better in all of the four courses, several others have completed at least one or two courses. These students will be given an opportunity to finish the other courses at a later time.

Completers were split in their reasons given for success. About 50% felt that the tutoring was the main reason for completion of the four courses. The remaining others felt that instructor interest and individual attention was most valuable.

All ten completers are in the final processes of being hired by the client company. The client company has been very pleased with the results of the program and has already indicated an interest in continuing on with a second minority training class.

Before another program gets underway, many problems must be dealt with more completely. The University is in the process of gathering information from each of the program players (client company, JTPA representative, students, instructors, and tutors). The findings will permit a redesign of the program to better meet the needs of the students and assure a higher completion rate.

A MODEL PROGRAM

KAREN RICHARDSON

Abstract

The Public Works Academy in St. Petersburg, Pinellas County, Florida, is a model program resulting from tremendous cooperation and linkages of resources.

The background and history can be categorized into four phases:

1) Identifying a Need
2) Identifying Resources
3) Linkages and Cooperation
4) Establishment of the Public Works Academy

Identifying A Need

The City of St. Petersburg recognized the increasing complexity of the tasks being performed in the Public Works Departments of the City. Licensing requirements of the State of Florida exist for many jobs and licensing for additional jobs is in the offing.

The General Maintenance Department of the City found it necessary to continually do more training of its public works employees in order to have a workforce capable of understanding and performing tasks involving computerized procedures and costly and sophisticated equipment.

Identifying Resources

Since training is not the City's primary function, the Pinellas County Schools Technical Education Centers and the Florida Bureau of Apprenticeship Training were contacted for assistance. After a process of clarification and organization, apprenticeship programs were established for specific activities. The school utilized its training resources in conjunction with the City providing technical information and pieces of equipment, when necessary, for hand-on training. General Maintenance employees were provided the opportunity and incentive to participate in these apprenticeship programs. With this program underway, attention was directed to recruiting new employees with more skills and abilities.

Linkages and Cooperation

Being aware of the workforce trends and projections for the 1990's, the training needs, the mixed composition of available workers, the City and school began discussions about the need for and feasibility of a training program for people not already employed in public service to acquaint them with the skills and abilities necessary for successful careers in this field.

At this point, 28 representatives from City and County governments, a utility contractors association and Pinellas County Schools were pulled together to discuss the perceived need. There was agreement that it would be beneficial to explore the feasibility of a cooperative approach to attracting potential job applicants, and providing them with orientation to the functions of public works and basic information which would enhance their employability.

A Board of Trustees was established with seven representatives. The composition of the Board was designed to represent two large cities, two small cities, a county government, a utility contractors association, and the American Public Works Association.

The Pinellas County Schools Technical Education Centers was willing and able to be

the course provider. Through this process the school is able to assess applicants' reading and math skills, and provide remediation when necessary.

Upon agreement of the Board of Trustees and the Pinellas County Schools, the concept of a Public Works Academy evolved. The Board of Trustees authorized and appointed a Technical Advisory Committee to work with representatives of the school system to develop a realistic and comprehensive curriculum. A subcommittee was established for each major functional area incorporated in public works. Each committee had operational people from the various cities, counties, and contractors associations, to ensure content which was up to date, accurate and applicable to each discipline. Topics covered were: Technical Design and Drafting; Equipment Maintenance; Parks, Buildings and Grounds; Traffic Operations; Wastewater Collection; Wastewater Treatment; Water Distribution; Water Treatment; Streets and Storm Drainage; Equipment Operation; Solid Waste Collection and Disposal; Management/ Employee Responsibilities.

Establishment of Public Works Academy

Through the combined efforts of many people, a curriculum was established and the Public Works Academy has become a reality. The first class of Public Works Cadets was begun October 10, 1989. The future looks bright and with continued cooperation, the Public Works Academy can attract high school graduates, workers in job transitions, women looking for non-traditional jobs, minorities and any person looking to begin a new career.

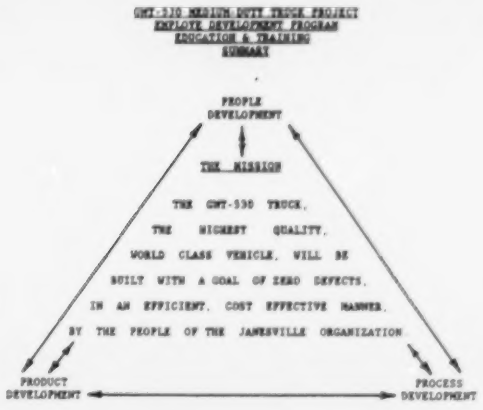
The moral to this story is that much can be done to address work place training needs if we are willing to cooperate and combine resources for the good of our communities.

THE GENERAL MOTORS 530 PROJECT MODEL

BY
JIM ARMSTRONG
MIKE MARCKS
JANE SVENNEVIG

Abstract

One of the nation's largest retraining efforts took place in tne Spring of 1989 at the Janesville, Wisconsin, General Motors Assembly Plant and Blackhawk Technical College. Faced with the task of helping workers design and learn their own jobs on the assembly line to produce the new 530 Medium Duty Truck, GM and the United Auto Workers developed partnerships with the State of Wisconsin and Blackhawk Technical College. By the end of the six month training period, nearly 1400 workers had successfully completed a combination of classroom and hands-on training designed to accomplish the following mission: "The GMT-530 Truck, the highest quality, world class vehicle, will be build with a goal of zero defects, in an efficient, cost effective manner, by the people of the Janesville organization."


GMT-530 MEDIUM DUTY TRUCK PROJECT
EMPLOYE DEVELOPMENT PROGRAM
EDUCATION & TRAINING
SUMMARY
PEOPLE DEVELOPMENT
THE MISSION
THE GMT-530 TRUCK, THE HIGHEST QUALITY, WORLD CLASS VEHICLE, WILL BE BUILT WITH A GOAL OF ZERO DEFECTS, IN AN EFFICIENT, COST EFFECTIVE MANNER, BY THE PEOPLE OF THE JANESVILLE ORGANIZATION
PRODUCT DEVELOPMENT
PROCESS DEVELOPMENT
SKILLED TRADES TRAINING
PROTOTYPE VEHICLES & TRAINING
TRAINING VEHICLES & TRAINING
SALEABLE VEHICLES & TRAINING
CLASSROOM EDUCATION & TRAINING
SYSTEM FILL/DEBUG & TRAINING
START OF PRODUCTION/ACCELERATION & TRAINING
ON-GOING EDUCATION & TRAINING

GMT-530 MEDIUM-DUTY TRUCK PROJECT
EMPLOYE DEVELOPMENT PROGRAM
EDUCATION & TRAINING
PHASE 1

SKILLED TRADES TRAINING

WHEN - APRIL 1, 1987 THROUGH ON-GOING

WHAT - EDUCATION & TRAINING FOR THE SKILLED TRADES IN THE NEW TECHNOLOGIES, EQUIPMENT, & SYSTEMS

WHY - TO ALLOW THE SKILLED TRADES TO BE ABLE TO
- SET-UP
- OPERATE
- MAINTAIN &
- TROUBLESHOOT

HOW - DEVELOP IN-HOUSE PROGRAMS WITH THE EXISTING TECHNICAL TRAINERS
- ESTABLISH AND USE A VENDOR EQUIPMENT TRAINING SPECIFICATION PROCEDURE

BEST COPY AVAILABLE

GMT-530 MEDIUM-DUTY TRUCK PROJECT
EMPLOYE DEVELOPMENT PROGRAM
EDUCATION & TRAINING
PHASE 2

PROTOTYPE VEHICLES & TRAINING

WHEN - JUNE 1, 1987 THROUGH JUNE 30, 1988

WHAT - BUILD PROTOTYPE VEHICLES
- OPERATE TEST EQUIPMENT
- RESOLVE ASSEMBLY PROBLEMS
- DEVELOP SEQUENCE MANUALS
- DETERMINE INDIVIDUAL JOBS

WHY - FAMILIARIZATION WITH PRODUCT AND PROCESSES BY TRAINERS

HOW - SELECT PRODUCT/PROCESS TRAINERS
- SEND PRODUCT/PROCESS TRAINERS TO QPC IN FLINT, MI
- PRODUCT/PROCESS TRAINERS ACTIVELY PARTICIPATE IN BUILDING PROTOTYPE VEHICLES

GMT-530 MEDIUM-DUTY TRUCK PROJECT
EMPLOYE DEVELOPMENT PROGRAM
EDUCATION & TRAINING
PHASE 3

TRAINING VEHICLES & TRAINING

WHEN - APRIL 1, 1988 THROUGH FEBRUARY 13, 1989

WHAT - TRAIN - THE - (PRODUCT/PROCESS) TRAINERS (APRIL - SEPTEMBER)
- JOB ANALYSIS TO DEVELOP INITIAL JOB WRITE-UPS DONE BY PRODUCT/PROCESS TRAINERS (APRIL - JULY)
- BUILD TRAINING VEHICLES (MAY - SEPTEMBER)
- OPERATORS SELECT JOBS BASED ON INTITIAL JOB WRITE-UPS (JUNE - AUGUST)
- TASK ANALYSIS TO DEVELOP TRAINING MODULES (JULY - AUGUST)
- TRAIN THE OPERATORS ON THE INITIAL JOB WRITE-UPS (OCTOBER - FEBRUARY)
- REVISE INITIAL JOB WRITE-UPS (OCTOBER - FEBRUARY)

WHY - TO FAMILIARIZE THE OPERATORS WITH
- THE PRODUCT
- THEIR JOB ASSIGNMENT

HOW - SCHEDULE PRODUCT/PROCESS TRAINERS FOR TRAIN - THE - TRAINER COURSES
- ACTIVELY PARTICIPATE IN BUILDING TRAINING VEHICLES
- OPERATORS SELECT JOBS FROM WRITE-UPS
- PRODUCT/PROCESS TRAINERS WORK TOGETHER TO DEVELOP TRAINING MODULES
- OPERATORS SCHEDULED TO ATTEND TRAINING
- PRODUCT/PROCESS TRAINERS RE-WRITE INITIAL JOB WRITE-UPS BASED ON INPUT OF OPERATORS

GMT-530 MEDIUM-DUTY TRUCK PROJECT
EMPLOYE DEVELOPMENT PROGRAM
EDUCATION & TRAINING
PHASE 4

SALEABLE VEHICLES & TRAINING

WHEN - FEBRUARY 13,1989 THROUGH JULY 7, 1989

WHAT - BUILD SALEABLE VEHICLES
- TRAINERS PERFORM REVISED JOB WRITE-UPS

WHY - WORK WITH PRODUCTION PARTS
- EVALUATE OPERATOR WORK ASSIGNMENT WITH ASSIGNED OPERATOR

HOW - SCHEDULE OPERATORS TO THEIR JOB ASSIGNMENT
- PRODUCT/PROCESS TRAINERS WORK WITH OPERATORS ON PERFORMING REVISED JOB WRITE-UPS

GMT-530 MEDIUM-DUTY TRUCK PROJECT
EMPLOYE DEVELOPMENT PROGRAM
EDUCATION & TRAINING
PHASE 5

CLASSROOM EDUCATION & TRAINING

WHEN - APRIL 3, 1989 THROUGH JUNE 22, 1989

WHAT - PROVIDE HIGH QUALITY CLASSROOM EDUCATION & TRAINING IN THE FOLLOWING AREAS
- PRODUCT & PROCESS INFORMATION
- QUALITY & RELIABILITY TOPICS
- PERSONNEL, HEALTH & SAFETY PROGRAMS
- INDIVIDUAL & GROUP DYNAMICS
- DEPARTMENT SPECIFIC AREAS
- MANAGEMENT/UNION LEADERSHIP

WHY - TO DEVELOP A BETTER UNDERSTANDING OF THE WAY WE WILL BE DOING BUSINESS IN THE FUTURE

HOW - CONDUCT A NEEDS ANALYSIS
- CONSULT WITH
  - OTHER TRUCK & BUS OPERATIONS
  - B.O.C. EDUCATION & TRAINING
- WORK IN COOPERATION WITH THE LOCAL
  - TECHNICAL COLLEGE
  - COMMUNITY COLLEGE
- PROVIDE TRAIN-THE-TRAINER ACTIVITIES FOR NON-TEACHING PERSONNEL
- SCHEDULE HOURLY AND SALARIED EMPLOYES INTO
  - CORE CLASSES
  - DEPARTMENT SPECIFIC CLASSES
  - LEADERSHIP CLASSES

GMT-530 MEDIUM-DUTY TRUCK PROJECT
EMPLOYE DEVELOPMENT PROGRAM
EDUCATION & TRAINING
PHASE 6

SYSTEM FILL/DEBUG & TRAINING

WHEN - JULY 10, 1989 THROUGH AUGUST 14, 1989

WHAT - FILL THE SYSTEM WITH MATERIAL
- ASSIGNED OPERATORS EVALUATE
  - JOBS ON MOVING CONVEYOR
  - WORK AREA LAYOUT
- BUILD LEAD UNITS

WHY - DEBUG SYSTEM PRIOR TO START OF PRODUCTION

HOW - ASSIGNED OPERATORS BROUGHT BACK TO WORK IN SEQUENCE
- PRODUCT/PROCESS TRAINERS WORK WITH OPERATORS

GMT-530 MEDIUM-DUTY TRUCK PROJECT
EMPLOYE DEVELOPMENT PROGRAM
EDUCATION & TRAINING
PHASE 7

START OF PRODUCTION/ACCELERATION & TRAINING

WHEN - AUGUST 14, 1989 TO MARCH, 1990

WHAT - PROVIDE ON-GOING TRAINING AND SUPPORT AFTER THE START OF PRODUCTION

WHY - TO ACHIEVE THE HIGHEST LEVEL OF QUALITY IN AN EFFICIENT, COST EFFECTIVE MANNER

HOW - CONTINUE PRODUCT/PROCESS TRAINING ON LINE
- RESOLVE PROBLEMS IN A TIMELY AND EFFICIENT MANNER

GMT-530 MEDIUM-DUTY TRUCK PROJECT
EMPLOYE DEVELOPMENT PROGRAM
EDUCATION & TRAINING
PHASE 8

ON-GOING EDUCAION & TRAINING

WHEN - MARCH, 1990 TO ON-GOING

WHAT - PROVIDE ON-GOING EDUCATION & TRAINING

WHY - TO RETAIN THE HIGHEST LEVEL OF QUALITY, IN AN EFFICIENT, COST EFFECTIVE MANNER

HOW - EMPLOYES TO BE PROPERLY TRAINED BEFORE STARTING NEW JOB ASSIGNMENT

THE ROLE OF BLACKHAWK TECHNICAL COLLEGE

I. Provided Technical Assistance
- A. Identified retraining funds
- B. Assisted in writing applications for grant funds
  1. Organized information from GM
  2. Coordinated with other area agencies to provide background data, labor market information, employment impact analysis information, county demographics, etc.
  3. Identified skill by skill breakdown of specific training components
  4. Assisted to prepare forms
  5. Formatted, printed and bound final documents
  6. Attended hearing for grant review with GM personnel
- C. Followed up with modifications and revisions as needed

II. Designed Training
- A. Acknowledged company restraints
  1. Union contract obligations
  2. Time limitations imposed by set-up, lay offs, and/or production schedules
  3. Need for frequent changes/modifications due to number of persons who had input
  4. Company time schedule -- Started at 5:00 AM daily as needed
- B. Advocated for instructional integrity
  1. Pretraining needs (Adult Basic Education and remediation)
  2. Need to mix classroom and hands-on
  3. Need to train close to actual job startup
  4. Effect of setting (campus vs. GM training center or plant) on outcomes
  5. Effect of scheduling (time of day, duration of sessions, scheduling of breaks, availability of food and smoking areas, sequencing of classes, etc.) on outcomes and motivation 6. Need for top level management support of training
  7. Need for instructors with large industry savvy who can relate to workers (speak "GM")
  8. Need for curriculum with specific and direct job relavancy
  9. Need to continually evaluate training progress
  10. Need to modify training based on evaluations

BEST COPY AVAILABLE

III. Conducted training

A. Adapted setting to worker's needs
   1. Sent flyer out in advance to workers via GM informing of on-campus training, showing location of college, designated parking, GM entrance etc.
   2. Installed signs in campus buildings directing to training rooms, cafeteria, pay phones, etc.
   3. Informed College staff and students of GM on-campus presence via student and faculty newsletters
   4. Arranged training break and lunch schedules to avoid normal student rush periods
   5. Designated "GM rooms" for coat storage and installed microwave ovens for carry-in lunches
   6. Provided folders, supplies and special campus maps at check-in
   7. Contracted to provide coffee and juice daily

B. Instructed classes at Campus, GM Training Center and Plant
   1. Assessed and planned program for basic skills remediation in reading and math
   2. Developed training for production workers including:
      a. Language of Business--introduction to principals of budgeting
      b. Working--Zenger-Miller program (2 sections) included problem solving, communications, adapting to change, and team building concepts
      c. Healthy Back--techniques in managing changed work environment, larger vehicle and more complex build
      d. General and Robotic Safety--review with emphasis on technology of new line
      e. Hazardous Communications--right to know law and chemical awareness
      f. Methods to Assist Production--kitting and JIT suppliers
      g. CRT Familiarization--introduction to computer integrated production and JIT suppliers
      h. Metal Finishing--advanced techniques in metal reworking
      i. Quality Assurance--SPC and problem solving

C. Evaluated training
   1. Class mid point participant evaluations
      a. Class success in meeting learner expectations
      b. Ease of understanding class materials and information
      c. Interest level of content
      d. Significance of content
      e. Pace of class
      f. Suggestions for improvement
   2. End of training participant evaluations
      a. Overall per class effectiveness--likert scale
         1. instructor
         2. content
         3. materials
      b. Effectiveness of orientation, welcome presentations, facilities of BTC Campus
      c. Comments--what was liked, what needed improvement
   3. End of training report-out by instructors, BTC, GM and UAW personnel

What Needed Improvement

* The total scope of what the College could do needed to be communicated earlier on. A Training Liaison has now been hired by the College to serve the needs of GM exclusively. This position is joint funded by GM and the College.
* Designated College instructors needed to be oriented at GM as part of the actual training set-up. This could have resulted in a higher degree of instructor "integrity" with workers.
* The training day needed to be a combination of hands-on at the job site and classroom, perhaps a half day of each to get maximum benefit of application of concepts to practice. In addition, training needs to occur as close as possible to the actual job start-up.
* Even though the College campus environment was rated well on evaluations after workers had completed the on-campus week, the first days threatened workers in spite of college efforts to accomodate their needs. There was a perception that training held on campus was theoretical while training held at the work site was practical even though on occasion identical material was covered.
* Strategies for helping the reluctant learner are needed in the areas like basic skills, handling stress, coping with change, and learning to learn.
* Workers need to be helped to view on going training as a normal part of their job. Training will occur in the plant and at training centers as a frequent part of the work future.

The Role of Education and Human Resource Information Systems in Curtailing Perceptual and Organizational Barriers to Women's Training and Organizational Advancement

Kathryn J. Ready
Department of Business Administration
University of Wisconsin-Eau Claire

Abstract

Womens' perceptions about their own career potential may be a roadblock for their advancement. Four-hundred and seventeen college junior and senior business students were asked their projected starting salary and their projected salary once they had reached the height of their career. Using this data, I argue that educators and organizations need to be aware of the differences in male/female salary expectations and promote career development practices within the organization. To most efficiently accomplish this objective, human resource information systems can be incorporated to best utilize available resources.

During the last two years, studies such as Workforce 2000 (Hudson Institute, 1987) and Building a Quality Workforce (Departments of Labor, Education and Commerce, 1988) have documented projected shifts in the labor market. Specifically, the Hudson Institute claims that women will comprise about three fifths of the new entrants into the labor force between 1985 and 2000. Yet women continue to comprise relatively few top positions in firms.

Research has focused on external causes as explanations for women's inability to advance as quickly as men in organizations. Considerable attention has been given to discriminatory practices directed against women in organizations (Heilman & Guzzo, 1978), difficulties due to sex stereotyping (Broverman, Vogel, Broverman, Clarkson and Rosenkrantz, 1972) and gender characteristics required for effective performance as managers (Donnell & Hall, 1980). Attitude theory and research (Fishbein and Ajzen, 1975) suggest that male managers with negative attitudes are predisposed to act on these attitudes when dealing with women in firms. Such actions may be particularly detrimental to women managers with respect to advances in salary and position.

This paper examines individual differences as an explanation for women's inability to advance in organizations. Specifically, I examine differences in male/female wage expectations. I survey college men and women about their starting salary and their projected salary once they had reached the height of their career. Using this data, I argue that educators and organizations need to be aware of the differences in male/female salary expectations and seek to promote career development practices within the organization. To most efficiently accomplish this objective, human resource information systems can be incorporated to best utilize available resources.

1. Current Salary Differences

Wage differentials do exist between men and women. For all women in year round full-time employment, by occupation of longest job held, median earnings in 1987 were $16,909 compared

with $26,008 for men. Women earned 65% of mens' salary. Women in executive, administrative, and managerial occupations, however earned only 57% of what men in these occupations earned as shown in Table 1. Women in professional specialty positions fared somewhat better earning 68% of what men earned in these positions, while women in sales earned only 51% of what men earned in comparable positions. One explanation for this difference has been the greater tendency of women to stop working for a period during their careers and the tendency of women to be segregated in jobs in lower paying industries (Strober, 1982). More women are aspiring to managerial careers, but many of those who have taken advantage of these opportunities in the past decade are now facing difficult choices involving trade-offs between career and family and, in some cases, this results in lower aspirations and expectations of women.

Table 1

Median Earnings by Occupation of Longest Job Held and Sex for Year Round Full-Time Employees, 1987

	Median Earnings		Ratio: Women to Men	
	Male	Female	Median Earnings	Number Represented
Executive, Administrative, and Managerial	$36,155	$21,874	.61	.57
Professional Speciality	36,098	24,565	.68	.73
Sales	27,880	14,277	.51	.58

Source: U.S. Bureau of The Census, Current Population Reports Statistical Abstract 1989, p. 407.

2. College Male/Female Perceptions of Salary Differences

To evaluate perceived wage differentials among tomorrow's workforce-- today's college students--I surveyed 417 college junior and senior business students enrolled in organizational behavior classes during 1988 and 1989. Students were asked their estimated first year starting salary and their projected salary once they had reached the height of their career.

Table 2 shows that college women estimate their first year salary to be $22,805 compared with college men's projected first year salary of $24,785. At the height of their careers, women estimate they will earn $66,836 compared with $99,341 for men. In other words, women estimate that they will earn 92% of what men earn on their first job and only 67% of what men expect to earn at the height of their careers.[1]

Table 2

Salary Expectations at Onset of Career and at Career Height by Sex

(Sample Size in Parentheses, T Values of Difference in Means in Brackets)

	Salary Mean	High Salary
Overall	$23,725.38 (411)	$81,686.55 (394)
Female	22,805.15*** (220)	66,836.45*** (214)
Male	24,785.34** (191) [-3.87]	99,341.67*** (180) [5.39]

***p < .00

[1]These findings are consistent with Major and Konar 1984), although women are reporting comparatively higher salaries. Major and Konar surveyed 83 students enrolled in a management internship program during 1980 and found that the mean salary for women was 85% of the mean salary reported by men during the first working year. At the peak of their careers, women expected to make only 60% of what men predicted. Strober (1982) finds that the gender gap in salary aspirations widened (women expected only 43% of male earnings) as the result of four years of work experience.

Table 3 shows that one half of the women expect starting salaries to be in the $20,000 to $24,999 range whereas only 42% of men fall into this category. Almost one third of the men expect to earn from $25,000 to $27,499 their first year of work. Over 50% of both men and women expect to earn $50,000 to $89,999 at the peak of their career. However, over one third of the men expect to earn over $100,000 whereas only 14% of the women fall into this category as shown in Table 4.

Table 3

Percentage of Males and Females Reporting Salary Expectations at Onset of Career by Wage Category

	Females[a]	Males[b]	Overall
< 20,000	14.8%	5.7%	10.6%
20,000 - 22,499	34.1%	24.7%	29.7%
22,500 - 24,999	15.7%	18.0%	16.8%
25,000 - 27,499	21.5%	29.4%	25.2%
27,500 - 29,999	3.6%	12.4%	7.7%
> 30,000	10.3%	9.8%	10.1%

[a]n = 223; [b]n = 194

Table 4

Percentage of Males and Females Reporting Salary Expectations at Height of Career by Wage Category

	Females[a]	Males[b]	Total
< 30,000	18.7%	12.2%	10.0%
30,000 - 49,999	28.5%	23.9%	21.1%
50,000 - 69,999	38.3%	25.6%	31.7%
70,000 - 89,999	14.5%	25.6%	19.5%
90,000 - 99,999	2.8%	5.0%	3.8%
100,000 - 199,999	11.2%	22.8%	16.5%
> 200,000	2.8%	10.6%	6.4%

[a]n=214; [b]n=180

When I examine mean salaries by position as shown in Table 5, I find that women in management expect to earn significantly less than men in management. Women expect to earn $22,338 at the start of their career compared with $24,694 for men. Female managers at the peak of their career expect salaries of $66,950 compared with salaries of $96,470 for male managers. Women in accounting and banking expected to earn more than men at the start of their careers, however this trend reverses at career height.

Women perceive that they will earn less than men at the beginning of their career and this gap will widen over time. In part, this belief is reinforced by the realities of pay differences that have occurred historically. Using expectancy theory to explain this relationship, women can value or place valence on a position (outcome) very highly, but because of their perceptions of the male-dominated corporate world (few women hold high ranking positions), their instrumentality between performance and outcome is quite low (although still positive). Stated simply, women may believe that high grades may lead to a good starting job, but also feel that promotions to higher levels in the organization are unlikely or, at the very least, problematic. Noting the small number of women at the top, the likelihood of women advancing to these positions appears relatively low. This results in women setting goals lower than that of men with comparable education and experience. In short, women's inability to advance becomes a self-fulfilling prophecy whereby lower expectations will yield higher satisfaction levels.

Table 5

Salary Expectations at Onset of Career and at Height of Career by Position

(Sample Size in Parentheses and T Values in Brackets)

	Male Mean	Female Mean	Male High	Female High
Banking	$22,552.63	$24,394.74	$66,736.84	$60,972.22
	(19)	(19)	(19)	(18)
		[1.35]		[-.91]
Sales	24,645.83	24,200.00	91,645.83	97,357.14
	(24)	(15)	(24)	(14)
		[-.18]		[.29]
Accounting	24,218.75	25,190.48	123,125.00	74,404.76
	(16)	(21)	(16)	(21)
		[.69]		[-1.59]
Manager	24,694.44**	22,338.71**	96,470.59*	66,950.00*
	(18)	(31)	(17)	(30)
		[-2.42]		[-1.83]
Systems	26,600.00	25,727.27	130,575.00	75,727.27
	(20)	(11)	(20)	(11)
		[-.62]		[-1.30]
Personnel	30,000.00	22,000.00	80,000.00	68,361.11
	(1)	(18)	(1)	(18)

**p < .05; *p < .1

These results are a reason for concern due to the anticipated change in the labor force. In 1987, 56% (53.7 million) of all females were employed. By the year 2000, Bureau of Labor Statistics estimates indicate that 65.6 million or 61.5% of all women will be in the labor force. Women will represent 47.5% of the workforce. These figures do not, however, point out the increasing numbers of women that are college students today that will be potential labor force participants in the year 2000. According to Bureau of Labor Statistics estimates, by the year 2000, 82.3% of women in the 25-34 year age bracket and 84.2% of women in the 35-44 year bracket will be working.

3. The Educator's Role and the Need for Career Development in Human Resource Information Systems

I find that women's expectations of their career potential which can be measured in part by salary expectations are less than that of men's expectations. Women demand less from themselves and from their employers. Women's perceptions of their future worth in terms of "value added" to the firm acts as an impediment in developing a quality workforce. This problem needs to be addressed on two fronts. First, as educators we need to foster discussions about student career expectations and how perceptions can act as a barrier to advancement. If we

demand more from ourselves and our employers and are not complacent with existing inequities, then change is inevitable. If, however, we adopt the external locus of control approach and blame our lack of advancement and career growth on our employer and societal inequities, then we have bought into a self-fulfilling prophecy.

Second, recognizing women's tendency to self-select lower achievement levels, an organization can gain by promoting career development practices. Integrated career development programs permit identification of employees current skills and also the training and skill development necessary to promote optimal employee contributions. Recognition of these factors can be accomplished most efficiently by the adoption of an integrated human resource information system (HRIS).

In a recent survey of 792 human resource professionals concerning their attitudes toward career planning administered at ASPA's 39th annual conference, a noticeable difference was found among male and female respondents. Women were more inclined to be more interested in career counseling and to focus more on education as a means of career development than their male counterparts (Louchheim and Lord, 1988). Women indicated a desire for career planning programs, a necessary component of a HRIS.

The HRIS will aid in employee career development and should include information for individuals about themselves such as objective performance appraisal data, career goals, interests, and skills. Information about the organization including job openings, job requirements, present and future jobs, and salaries should also be available to employees. Employees would also benefit by developmental resources the company offers (training programs, seminars, tuition reimbursement plans) as well as historical information such as job trends, and past growth trends.

Management would gain by incorporating promotional and pay policies, information on who is leaving the organization and why they are leaving into a HRIS. Employees ages, training programs, education interests, goals, historical information on each person's career inside and outside the company and assessments of employee potential is also necessary. All individuals should be evaluated in terms of their career goals and aided by the organization in moving along their desired track.

Non-computerized developmental concerns may include workshops, counseling by outside professionals, and the establishment of formal mentoring systems. The purpose here is not to provide an exhaustive list on what career development plans should entail, rather it is to provide practitioners with a starting point in computerizing employee records which can then be utilized by the employees themselves, managers, human resource professionals, and immediate and future supervisors. An integrated HRIS will include all end users in the developmental stages in terms of how this information will be used and who will have access to it.

Career development permits a realistic understanding and appreciation of what the company can offer individuals and allows employees to ascertain how their goals fit in with those of their employer. Employees who have thought about what they want from their career and who have been given a chance to express those aspirations are less likely to leave.

Due to increased competition in part as a result of mergers and acquisitions, retaining a satisfied, committed workforce is a vital concern to managers. Career planning by employees can be a motivating factor for today's changing work force. Because individuals view the process of career development differently, a human resource information system can encompass different end users. Recent evidence has suggested that many individuals view their careers as ideally consisting of a series of steps up an organizational ladder - the linear career concept. Others view their careers as a lifelong commitment to a job or field - the steady state concept. Still others see their career as a series of infrequent but major shifts to new occupations or functional domains - the spiral concept. Finally, there are those who view their career as a series of frequent moves between jobs that are unrelated - the transitory concept (Glinow et al., 1983, Olson, 1979, Prince, 1979). An integrated HRIS can supply the necessary information to all employees - those seeking advancement in their present field and those desiring transfers as a means of advancement.

4. Conclusion

Womens' perceptions about their own career potential may be a roadblock for their advancement. It may be that women do not aspire to higher levels in organizations because they have incorporated traditional stereotypes into their self-concepts. Educators by pointing out these misperceptions can foster discussions of the necessity for internal locus of control in career decisions for men and women. Organizations can most effectively develop a growing female workforce by

incorporating career development practices in their human resource information system.

References will be furnished upon request.

THE ROLE OF TWO-YEAR COLLEGES IN THE DEVELOPMENT AND IMPLEMENTATION OF AN INNOVATIVE SUPERVISORY DEVELOPMENT PROGRAM IN THE STEEL INDUSTRY.

JW WALLACE, WHEELING PITTSBURGH STEEL CORPORATION
TRACEE JOLTES, JEFFERSON TECHNICAL COLLEGE
TOM TAROWSKY, BELMONT TECHNICAL COLLEGE
MARSHALL PICCIN, BELMONT TECHNICAL COLLEGE
HAROLD SARGUS, ASSISTANT DEAN FOR CONTINUING EDUCATION, BELMONT TECHNICAL COLLEGE

Abstract

An innovative supervisory development program for industrial maintenance is in place in plants of Wheeling-Pittsburgh Steel, a Fortune 500 company, because of the cooperative efforts of the colleges and the company. An analysis of company training needs indicated that the two-year colleges were the appropriate training vendors. Belmont Technical College and Jefferson Technical College teamed up to design a mechanical supervisor curriculum and electrical supervisor curriculum. With the use of a standardized testing program (ASSET), the colleges assessed the existing basic skills of about 200 supervisors. A spreadsheet tracking program was established and employee training performance was measured by the use of pretests and post tests. In addition to classroom training, training was conducted in plant as much as possible. The success of this development program will ensure the implementation of long range supervisory development training.

Corporate Needs vs. Wants - The Analysis

The first step of the analysis involved clearly identifying employees' needs for skills required for the nineties. The pilot group chosen to implement this multi-skilled development training was the mechanical and electrical supervisory personnel in 6 of the corporation plants located in the Ohio Valley Area. Initially criteria were established describing performance expectations and data gathered on expectations. The formula used to review: Desired performance - current performance = training need or want. From this evaluation, the decision was made to implement or not implement the program. Following are the components considered:

(1) Performance Expectations: identify and describe expectations of employees; establish performance standards for all identified participating positions.

(2) Gather Data On Expectations: identify where the program is to be implemented; how to determine if the participants have met expectations; how to document results and the number of employees affected by these expectations.

(3) Desired Performance - current performance = training need or want. In order to utilize this formula, it is necessary to describe desired performance and current performance and then to develop the appropriate action plan to address the training need.

(4) Analysis of Expected Results: Determine individual and corporate benefits in meeting identified expectations and where benefits might be expressed in dollars. Upon completing identification of these benefits, determine their significance and whether to begin the program. Results of this program must be measurable and adaptive to program growth.

(5) Decision: If the decision is to implement the program, then the question is who, what, when, where, how, and will it take place internally or externally?

Development From The Educational Perspective

In October of 1988, Jim Bronchik, General Manager of Corporate Personnel at Wheeling Pittsburgh Steel Corporation, approached the educational institutions in the area of Belmont Technical College and Jefferson Technical College. The geographical placement of these institutions in relation to the corporation's plant locations show an obvious basis for combined effort on the part of these institutions to provide training for the corporation's employees. Meetings were held with various upper level personnel in these institutions.

The corporation's needs were discussed, and it was determined within each educational institution that comparable departments would develop and track the program which would involve approximately two hundred supervisors; eighty in the electrical area and one hundred twenty in the mechanical area. In order to track these individuals, a spreadsheet format was utilized. It included basic information such as class dates and attendance records, as well as test and quiz scores for each student. These individuals were to be diagnostically tested, evaluated, and individual skills assessment programs developed to prepare them for entry into the appropriate training programs; mechanical or electrical. Each of the programs would consist of approximately 260 hours and would have appropriate instructional modules. Resources from each educational institution were contributed, as well as from Wheeling Pittsburgh Steel Corporation, various primary equipment vendors, etc., and initial course outlines were developed. The total program would include basic math as a foundation and a maximum of hands-on training in order to develop trouble-shooting skills. The program would provide the required knowledge for the student to supervise others who might have more hands-on experience and to familiarize him in the various skill areas, providing a speaking and working knowledge in the areas of supervision. The hours of instruction were set as 11:30 a.m. - 2.30 p.m. and 3:30 p.m. - 6:30 p.m. each day, two days per week, with a one to two week break between modules. The three hour day would be in addition to the employee's full-time workload on the job. The hours were selected as being able to handle both the dayshift and the midnight shift. Much of the course work involved in the program is of a technical nature, as evidenced by the subject topics of study. Fundamentally, the goal of the training emphasizes the development of the knowledgeable worker - front line leaders who have developed their ability to manage people.

In the wake of the growing demand for workforce training and retraining, the continuing education of the individual has become increasingly important. In its recent report, "Building Communities: A Vision For A New Century" (1988), the commission on the Future of community Colleges stated, "For many workers, learning will be lifelong. It is unrealistic to think that young adults can be trained in skills that will serve a lifetime."

This plan has been developed in response to an expressed need; in this case by Wheeling Pittsburgh Steel Corporation for the mechanical and electrical supervisory personnel, and has been edited and refined to meet this need.

The population of students involved in this program varies tremendously in personal as well as educational background. Their ages range from 22 to 63 years, and their various educational histories involve a few who never received a traditional diploma to those who have degrees in engineering in their own fields of expertise. Collectively, the decision was made to utilize the ASSET test for screening and placement of the students. This is a diagnostic skills assessment tool which had previously been used for this purpose by both Jefferson Technical College and Belmont Technical College.

Orientation And Testing

ASSET is published by the American College Testing program. Designed for use by two-year-level colleges, the purpose of ASSET is to help determine the individ-ual's present strengths and weaknesses in four basic skill areas. Demographic information drawn from ASSET indicates that the average first-year student at Belmont Technical College may be defined as "nontraditional"; the average student was nearly 31 years of age in 1988. The regular student population has many similarities to the population which was tested for Wheeling-Pittsburgh Steel. ASSET was administered by BTC staff to groups of from 4 to 20 employees of Wheeling-Pittsburgh Steel as company conference rooms at six plant locations in Eastern Ohio and the Northern Panhandle of West Virginia. Company personnel provided an orientation to the MSDP program and assisted employees in completion of Participation Information Forms prior to the beginning of each testing session. Academic skill levels measured by ASSET are:

LU (Language Usage)
RS (Reading Skills)
NS (Numerical Skills)
EA (Elementary Algebra)

The elementary Algebra and Numerical Skills scores were used to determine if an individual was ready to enter the basic math course; Elementary Algebra scores alone were used to identify eligible to test out of the first-level math course. Language Usage and Reading Skills scores were considered in selecting individuals for referral to either remediation or adult basic education. First, each individual's test scores were compared to predetermined cutoff scores.

First, each individual's test scores were compared to predetermined cutoff scores. Cutoff scores for the four skill areas were the same as used for our regular student population. These score were:

Language Usage - 39
Reading Skills - 24
Numerical Skills - 20
Elementary Algebra - 13

In analyzing employee scores, employees were categorized in one of four ways: (1) Lacking skills necessary to enter the training program. (2) Possessing the skills necessary to enter the training program, but is weak in mathematics. (3) Possessing the skills necessary to enter the training program. (4) Possessing the skills necessary to enter the training program and having tested out of the first- level math course.

A review of Participant Information Forms completed by individuals falling in the 1st category revealed that each had reported having received no high school diploma. These individuals were consulted; it was mutually determined pursuit of a GED would be advisable prior to entering the training program.

Those employees falling into the second category were placed in a review-level math course. Those falling into the third category entered the regular math course.

It should be mentioned that the difference between the "review-level" and "regular" math courses was not in content, but in classroom time.

Those individuals who scored at or above the cutoff score of 13 in Elementary Algebra (fourth category) were credited as having tested-out of the regular first-level math class.

The cutoff scores selected represent levels of performance seen by our faculty and administration as equivalent to those required for successful entry-level performance in degree-track courses at the two-year college level. Application of these scores to the Wheeling-Pittsburgh Steel Corporation population is warranted due to the similarities between the project population and our regular student population. Average scores bear this out:

SKILL AREA	CUTOFF	BTC	WHEELING-PITTSBURG
LU	39	44.18	43.71
RS	24	28.67	26.18
NS	20	19.77	24.17
EA	13	9.89	10.27

The perspective taken was that each participant in the training program would be expected to perform successfully at this level. With the exception of Elementary Algebra, each average score of the Wheeling-Pittsburgh employee group exceeded the cutoff score. The EA cutoff had been set at a high level for all populations tested to insure that those individuals entering programs requiring algebra have a strong background at entry to degree-track courses. Scores for the Wheeling-Pittsburgh group also exceeded those of our regular population in all areas except LU. This may be because the regular college population has had grammar courses more recently and/or because the Wheeling-Pittsburgh population does not function in a universe requiring that type of communication on a regular daily basis.

The testing component, then, served a number of purposes. The ASSET battery also confirmed the accuracy of the information on the Participant Information Forms. It provided the company with a corporate-wide skills database of its maintenance supervisors which can be used for future development of its employees. Finally, ASSET identified those individuals not needing the math class, resulting in savings of corporate training dollars.

Curriculum Outline

The next basic question to be answered was "What Will Be Included In The Curriculum?" The combined efforts of individual college training personnel and corporate training personnel produced the accepted course of study for the Mechanical and Electrical supervisors. The allowance of more time for Group III to complete the math course provided beneficial and all participants now had more similar basic math backgrounds.

Upon completion of the math course by Groups II & III, all participants were give the same Mechanical Blueprint Reading course which consisted of two (2) three (3) hour sessions per week for four (4) weeks. This equates to 24 total class hours.

The completion of these courses provided the basic background to now separate the Mechanical and Electrical supervisors to follow the prescribed curriculum. (See Figure 1)

A major task was the development of the courses in the curriculum. Considerable time was spent with appropriate plant personnel and the instructional/administrative staffs of Jefferson and Belmont Technical Colleges. Text materials were selected and course outlines were developed with weekly quizzes, along with pre and post tests. The pre and post test would be a tool for measurement of progress made by individuals as well as the group.

In addition to the qualification test, participants were required to take and satisfactorily pass all quizzes before continuing with subsequent classes.

Detailed course outlines were developed to insure proper coverage of topics selected as well as to provide institutional consistency. Guidelines were established to

assist communications, provide clarity and maintain standardization between institutions.

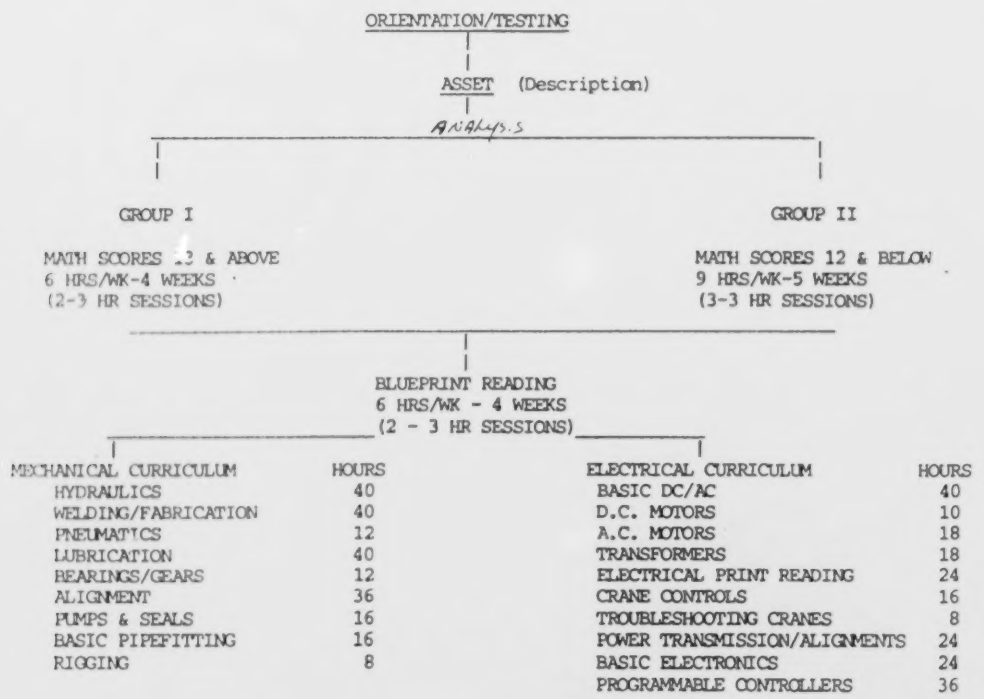
Testing policies, attendance policies and procedures were set and included in the guidelines.

Corporate Concerns And Long Range Plans

Prior implementing this program, the corporation had to decide if participation was to be mandatory or voluntary. The type of compensation, and if training, would take place during working hours. Other concerns were the identification of potential abuses and competition among plants. And finally, it was imperative that a clear understanding of confidentiality was established to encourage employee acceptance of performance appraisals.

Corporate long range plans must address the evaluation of the current program to include decision on continuation, modification and possible expansion.

FIGURE 1 - CURRICULUM OUTLINE



The Sandwich Generation

Margaret L. Arnold

He apologized for not being prepared. He explained it was a busy morning. My wife had to stay upstairs with her mother who had a bad night. I had to make the luncheon for the twins and the baby was crying because she was hungry.

This picture is repeated in many homes these days. Where daughters feel heavy obligations there are often extremes. An exhausted fifty-year-old was taken to the hospital because of exhaustion. She had been caring for her 70 year old mother who had Parkinson's Disease and a 90 year old grandmother who had an advanced case of osteoporosis.

It is the forty-year-old who wants to be in the work force in order to give financial assistance to her teen age children who finds herself saddled with parents or parents-in-law who cannot care for themselves and simply do not have the means to be in a nursing home. This not even to mention those with Alzheimer's who require special attention and care.

The role of the care taker and the caregiver shifts at different ages for different people. It comes for women at a time when they are apt to have physical concerns and when husbands are disillusioned and weary from their providers role. It is part of the mid life crisis which seems to come earlier and earlier into our lives. Women are frustrated, depressed and filled with worry for they are torn between being a good mother and a good daughter.

The pattern is going to magnify and increase as all of us live longer.

So what are the answers?

First of all is the need to cope with stress to develop a pattern of behavior and be aware that superwoman does not exist. One must reconcile to the fact that if you decide to go into the work force, then either good home assistance or some nursing home is the answer. One needs to balance the dollars and cents and weigh the cost in money and in anxiety.

Nursing home care has its special problems - travel to and from as well as the expense. One must rationalize and decide the course of action to eliminate guilt and fears as well as how to handle them.

We cannot emphasize too strongly the importance of wellness and the need for special attention to health needs - nutrition and exercise for the midlife woman. She cannot function emotionally and physically unless her health needs are met and are ready to combat fears and stress.

That midlife woman needs support - support from children, parents, extended family and most of all from her husband. The couple can feel truly under siege at times. Interrupted sleep, food preparation and general upkeep of the home are demands she realizes but from which she needs relief. It can be a formal or informal system.

A neighbor taking a parent for an afternoon ride in the country can "spell relief." A sister inviting the family for a meal means a change of pace. A twelve-year-old playing checkers with grandpa to help him forget his aches and pains.

Help from the community in a continuum of care can come by way of homemaker services. Older people like to feel independent and in their own home as long as possible.

Someone who comes daily can be the answer if at all possible. Meals on wheels make the difference for some. Good day care is not available in many areas but for those in cities or towns it allows the senior citizen to have a life during the day and allows the family to function independently. It even means daughters can be part of the work force. It assists in supplying medical needs and provides an important meal.

For the midlife person "at a distance" a surrogate is the answer. Usually, a nurse who visits her clients either daily or weekly to make certain they are taking medicine and eating nutritionally balanced meals. Reporting to the family, is a w ay to keep in touch and allow independence.

BEST COPY AVAILABLE

In cases where the need for care is beyond family ability, it falls upon the midlife couple to convince the elder that a nursing home will provide the best care. This is never easy. It is difficult to accept an institutional existence when our life patterns have been based upon having our own possessions in our own home.

When do you visit a nursing home to make decisions when comparison shopping?

The same one does the financial and legal planning for crisis periods the better.

The latter years can truly be the best years of your life. You have not only the love but the support of family, but neither they or you want to be a burden. This means many changes and shifts in activity. It often means a change of attitude toward each other.

It often means new techniques in caring. It often means family conferences to make certain that you use strengths to combat weakness.

The caretaker/caregiver reversal has never been part of the educational process. But as with the changes in population growth, it must be given a priority to save emotional as well as physical balance within the family.

SELF-MANAGING WORK TEAMS FOR IMPROVED QUALITY AND INCREASED PRODUCTIVITY

Phyllis Pirner
Wayne Rydberg

Self-Managing Work Teams For Improved Quality And Increased Productivity

These teams contribute to increased quality and productivity as employee skills and abilities are identified and they are empowered to use them in the team/work setting. Learn about the concept and the essential skills needed by such teams, based upon a successful model at AAL, a large corporation.

Introduction

Aid Association for Lutherans (AAL) is a Fraternal Benefit Society located in Appleton, Wisconsin. Over the past few years, AAL has made major organizational and structural changes orchestrated under the umbrella of "Transformation." As a result, AAL now has a new vision, a new look and new emphases. Much of the change was precipitated by a corporate desire for improved product quality, increased productivity, and the need to serve customers more efficiently and effectively.

Under transformation, AAL moved from a hierarchial organization to a flexible, versatile, flat organization. As part of this transformation of AAL's culture, structure and workstyle, two major service departments created self-managing work teams. These teams developed in an environment preceded by 80 years of history and tradition based on a hierarchy and were designed to help employees in their new environment. The change to self-management is a "brown field" (existing organization) rather than a "green field" (new site) experience.

Training Environment

The training for self-managing work teams was designed for 600 employees (including managers) with varying levels of willingness and ability to develop the skills for self-management within an 18-month training period.

Teams were formed with one manager's span of control consisting of eight to 40 employees. Twenty six managers organized and trained approximately 65 teams with eight to 10 members per team.

Training Purpose and Vision

Through intensive training, AAL is creating high performing, self- managing work teams which provide quality service and the greatest level of satisfaction to employees and customers alike. The goal is to empower teams to manage their work flow and environment which would, in turn, provide a rapid and flexible response to AAL customers.

A self-managing team has two related functions:

1. Team members are responsible for themselves and teammates.
2. Each team would eventually take on all of the managment skills presently exercised by the team manager.

Our efforts were designed to increase the team's willingness and ability to sustain a collaborative workstyle and carry out management functions with decreasing manager support. We envisioned the development of mature teams capable of diagnosing their needs, being flexible in their responses and choosing effective and satisfying responses to changing situations.

Training Design Features

Service team managers were positioned as team trainers. Prior to beginning the self-managed training, managers and team members completed basic classes which provided them with an orientation to AAL, a sensitivity to the needs of the fields sales staff and the concept of improved customer service.

Training Blocks — Self Directed and Team Directed

The self-directed training block included 24 hours of training divided into six sessions. It was designed to develop increased assertiveness and cooperation through skill building in self-assessment, active listening, feedback, conflict management and collaboration. Competency in these skills increases interpersonal effectiveness by establishing, strengthening and maintaining credibility, trust and confidence with other individuals.

The team-directed training block included 30 hours of training divided into five sessions. The block was designed to develop increased ability in providing support and direction through skill building in team development states, team leadership skills, team norming skills, team management skills and team collaboration. Competency enhances participation in team actions and decisions in order to establish, monitor and meet group goals.

Creative Training Features

The development of training materials was charged to a development team consisting of human resource development staff and representatives of the user teams. The charge was to develop the materials and to train the trainers.

All training materials use a process of progressive validation or developmental validation. Progressive validation applies specifically to the training done with the self-directed skills. Validation begins with self-validation (I can do it!) then progresses to teammate validation (You can do it!) and progresses to team validation (We can do it!).

The team-directed training uses a process of developmental validation.In developmental validation, the focus is between the manager (Can you do this with less management support?) and the team (We can do it!). Developmental validation gives the manager and the team a means to move to self-management.

Each training session normally has two meetings — about one week apart. The first session is to teach the skills. The week between sessions is for employees to practice the skill and the second meeting is for review and validation.

An added feature in the skill-teaching session was directed to the manager to help him or her work effectively with the team. This consultant skill building helped mangers to cope and to successfully modify their management role. The development team was concerned that as the teams grew into self-management, the manager would be faced with not being needed by the team in the traditional management sense.

Discoveries

The training in the self-directed block has been completed and the development of the team-directed block is currently nearing completion. As a result of our efforts, we learned the following:

* Management support is essential on an ongoing basis.
* Using managers as trainers resulted in a mixed quality of training. Eventually moving to team selected trainers has resulted in high quality training.
* Team skill training must be coordinated with functional training.
* Customer involvement in the development of the training plan and materials is helpful.
* Consultant skill building for managers reduces manager tension and role confusion.
* The development of the training is a dynamic experience. The development team needs to be flexible and adaptable as new needs are uncovered. The development team paralleled

developmental team stages(forming, storming, norming, performing.)

* Self-management takes time and commitment from everyone involved.
* Coordination with related efforts (compensation and performance appraisal modifications) is essential.
* Public exposure of the effort enhanced team member trust in the effort.

NEW YORK STATE SKILLED WORKER EMERITUS PROGRAM

DAVID J. GILLETTE

As government and business study our nation's human capital needs for the next decade, one fact has become unmistakenly clear. Our workforce is feeling the effect of our having directed so many students toward college and away from the skilled occupations of their parents and grandparents.

For this younger generation the option of entering skilled trades has been largely ignored, if not discouraged. Learning a skilled trade has unfortunately taken on a negative connotation even though opportunities are abundant and salaries competitive.

As we face a generation of retiring skilled tradespeople, this trend is resulting in a lack of qualified workers to replace them.

Business is reporting that many high school graduates who are not on the college track lack the skills necessary to enter the workforce. They are neither pursuing further education nor are they prepared to work. These students have received the message that they have missed out on the American dream by not attending college. Yet, many have also missed opportunities in other occupations which might provide them a rewarding and stable career, due to a lack of encouragement and support for occupational careers.

New York State has realized that it cannot afford to lose so many talented young people. In one step toward addressing the need to provide career direction, Governor Mario Cuomo in a joint effort with business

and labor has recently launched the Skilled Worker Emeritus Program. This innovative program is designed to assist retiring skilled workers pass on the knowledge and excitement they have for their occupations.

In August, 1989, Governor Cuomo selected forty New Yorkers from across the state based on two criteria: their expertise in their occupation and their concern for the future skilled workforce of the State. Each were nominated by one or more local leaders in business, education and labor at the invitation of Governor Cuomo.

Those selected represent a wide range of occupations - from sheet metal work to court reporting - and are anxious to share their love of their work. The Emeriti will serve both as role models and ambassadors for their occupations. They will speak to school children, adults searching for careers (including dislocated workers and displaced homemakers), teachers and guidance counselors, and civic associations.

The Governor's message to the Emeriti is simple: The skilled trades provide many opportunities for challenging, rewarding careers and must not be portrayed as second-class jobs. By sharing their personal stories, and their love for their work, the Emeriti will give this message to those who will listen.

The program is unique and is loosely structured, designed to allow the Emeriti the flexibility to target local needs with individualized approaches. The Emeriti's presentations are as varied as their experiences.

Herman Pollack, a machinist, and a community college professor, uses the enticing topic of space colonization to educate elementary and junior high school students about the importance of the skilled trades in building any new community. George and Jane Hare are actively committed to opening the field of court reporting to the visually impaired. Tom Duffy is a master wood worker and small-businessman who would like to transform the empty buildings in his Odgensburg property into workshops for the public. Alan Goldman, an appliance repairman and instructor in the trade, is committed to bringing the disadvantaged, especially young single mothers, into the skilled trades.

But all the Emeriti agree that the key group to educate about the trades are school-age children who are beginning to develop future goals. The Emeriti are interested in educating students about options and the flexibility that learning a trade can provide to their careers. Across the board, the Emeriti lament the loss of formerly prestigious company-sponsored apprenticeship programs and the decline of vocational education within the academic school day. As experience has shown many of the Emeriti, learning a skilled trade can provide both an exciting career and a stepping stone into more advanced technical work. It can also bring alive a student who is floundering or is disinterested in a straight academic program.

The narrowing of post-War II generations' view of options is due, in part, the Emeriti say, to their own generation. They say, "We wanted things to be better for our kids so we pushed college education, as being the be all and end all. It was something that most of us didn't have a chance to experience". Schools and society, as a whole, have supported this view and over emphasized the importance of white collar work over blue collar to the point that now, many previously American-made products are being imported form third world countries. Emmanuel Eisenhandler, an Emeritus who worked in the garment manufacturing trade for 42 years has seen that industry decline from the largest in America to the struggling business it is today.

Turning this kind of trend around and enhancing the image of the skilled trades is part of the Skilled Worker Emeritus Program's mission.

STATE AND LOCAL RESPONSE TO DISLOCATION EVENTS

DAN BOND AND JACK WARD

ABSTRACT

The passage of the Economic Dislocation and Worker Adjustment Assistance Act required state and local areas to design and implement response systems to dislocation events. The purpose of these response systems is to develop a reemployment strategy for dislocated workers in a timely manner. This presentation will discuss both state level "rapid response" and local level "expeditious response" and programs. Included will be a presentation on the planning and implementation of a project to assist the workers dislocated from Chrysler Corporation in Kenosha, Wisconsin.

Federal Dislocated Worker Law

The **Economic Dislocation and Worker Adjustment Assistance Act (EDWAA)** became law in August 1988, and required states and local areas to develop and implement by July 1, 1989, a comprehensive program to assist dislocated workers. This program places an emphasis on state level rapid response activities and locally developed systems to initiate services in an expedited manner to workers who are or will be dislocated. Assistance must be provided in a timely manner to facilitate the transition for individuals from one job to another.

The funding for EDWAA at the national level is $283 million this year. 80 percent of these funds are allocated to states, with 20% held in reserve at the national level by the U. S. Department of Labor . Each state is required to allocate 60% of their funds to substate areas, with 40% being available for state level activities.

In each state, 60% of the funds are allocated to grantees who are designated for each substate area. **Substate grantees** are designated by the Governor after receiving input from local Private Industry Councils and Local Elected Officials. The substate areas conform to existing geographic service delivery areas that were established earlier under the Job Training Partnership Act. Prior to receiving funds, each substate area is required to have an approved plan describing the manner in which services will be delivered to dislocated workers.

Each state has established a **Dislocated Worker Unit (DWU).** 40% of each state's funds are available to the DWU for program administration, technical assistance, rapid response activities, coordination and projects to provide readjustment and retraining services to areas experiencing substantial worker dislocations.

Wisconsin Response System for Dislocated Workers

Rapid and Expeditious Response

The EDWAA Act mandates that each state have an identifiable dislocated worker unit (DWU) with the capability to respond rapidly to plant closures and layoffs. Congress recognized that an effective **"Rapid Response"** capability requires that the state lay sufficient groundwork through the collection of information, development of linkages, and establishment of a public information/communication system to business, labor and communities throughout the state prior to actual initiation of an onsite visit to a plant experiencing a layoff or closure.

With respect to the substate areas, EDWAA charges the rapid response staff to assist the local communities in developing their own coordinated response to presumably smaller closures and layoffs that would not be appropriate candidates for the DWU rapid response. The Act refers to this as **"expeditious response."** In such cases, the rapid response staff would help the community obtain access to state economic development, JTPA Special Response Funds and other assistance if indicated.

In cases where a dislocation event affects 100 or more full time employees, the State Dislocated Worker Unit (DWU) will implement a Rapid Response.

In cases where a dislocation event affects between 51 to 99 full-time employees, the DWU and the substate grantee will determine what type of response will be implemented.

In cases where less than 50 workers are affected, the substate grantee will implement an expeditious response to the event.

Identification of Dislocation Events

The DWU will monitor plant closing data via federal WARN law or state plant closing law notices, Labor Market Information PMLPC reports, news media, organized labor contacts, and informal networking with other employment and training related agencies.

The initial contact with the company will be via telephone. The purpose of the call will be to verify the existence of the dislocation event with the employer.

Once the DWU has established that a mass layoff or plant closing will in fact occur, it will notify the substate grantee, Job Service, Department of Development, Unemployment Compensation Division and the appropriate state or regional labor organization if a union plant is involved.

Initial On-Site Meeting(s)

The Rapid Response Coordinator will then attempt to set up an on-site visit with both labor and management. The DWU may also meet separately with management and labor in cases where an initial joint meeting can not be established. The purpose of the meeting will be two-fold.

The DWU will provide information on the various services available to the company and the workers. This will include general information on services provided by the Department of Development (DOD), and employment and training services through the Department of Industry, Labor and Human Relations, including the promotion of the Labor-Management Committee approach.

If the company feels that assistance from DOD could help save the jobs at the plant, the Rapid Response Coordinator will put the appropriate company officials in touch with a DOD representative. The DOD will explore the various options in greater detail with the company.

The second reason for the on-site visit will be to collect information on employee demographics and resources available that is needed to plan a reemployment strategy for the workers. Some information may be readily available. The preferred method for obtaining additional information is to conduct an employee needs survey.

Workforce Reduction Committees

There are two types of workforce reduction committees that could be implemented to plan a reemployment strategy. If the company and the workers agree, an **In-Plant Committee** would be established. The DWU would provide assistance and training to establish the committee. Funds would be made available to support the In-Plant Committee if needed and available. If this approach is used, the DWU will inform the Substate Grantee, Job Service, Unemployment Compensation Division, DOD, organized labor and the local elected officials that this

approach will be implemented.

In the event an In-Plant Workforce Reduction Committee is not used, the substate grantee, with assistance from the DWU, will implement a **Community Response Team** approach to the dislocation event.

The Community Response team would consist of local education, training, social service and development agencies that could provide the necessary services to the laid off workers, as well as a representatives of the Private Industry Council and Local Elected Official(s).

The chair of the committee would be the representative of the PIC, Local Elected Official or the Area Labor-Management committee. Service provider representatives would not be allowed to chair the committee in order to avoid any potential conflict of interest.

If it is determined that local resources are insufficient to meet the needs for services, the Community Response team, with assistance from the DWU, would work together to secure any additional resources through the various state and federal programs.

The Community Response team could also be used to handle all expeditious response activities conducted by the substate grantee.

Planning a Reemployment Strategy

Planning a sound reemployment strategy to assist the workers being laid off is necessary no matter what type of workforce reduction committee is established.

The areas that need to be considered in planning a reemployment strategy include: collecting employee needs information; identifying and coordinating the existing financial and community resources and education and training agencies; determining what services will be provided and by whom, and identifying job opportunities. An ongoing communication plan to keep everyone informed is essential.

The Rapid Response Coordinator or another member of the DWU will continue to be involved for the duration of a project or dislocation event. Their involvement may vary from exchanging information periodically during smaller dislocations to establishing ongoing Labor-Management Committees and attending regular meetings. The DWU will maintain communication with the substate grantee, the company and the organized labor representative.

Plant Closing/Mass Layoff Notification System

The federal **Worker Adjustment and Retraining Notification Act (WARN)** requires that, with certain exceptions, employers of 100 or more workers must give at least 60 days advance notice of a plant closing or mass layoff to the affected workers or their representatives, the State Dislocated Worker Unit (DWU), and the appropriate unit of local government.

The Wisconsin statute on plant closings was recently amended to include language and definitions similar to the WARN Act. The law now requires 60 days notice for business closings or mass layoffs involving businesses that employ 50 or more people that will affect 25 or more people. It also establishes mechanisms for employees and municipalities to recover pay, benefits or surcharges from employers who fail to provide adequate notice.

A letter to notify the employer community of the state and federal notification requirements was mailed in January 1989 to all employers of 50 or more employees.

The notifications required by WARN and the state law are sent to the DWU, which is responsible for reviewing the information to determine if it meets the requirements of both state and federal law. A letter is sent to the employer to acknowledge receipt and to request additional information if needed.

Wisconsin has implemented a procedure to ensure that the units of state and local government affected by mass layoffs and closings are notified of employer notifications. These parties are copied on the acknowledgment letters sent to employers. The information that the employer submitted will be included with the letter. In addition, telephone contact is initiated as needed to facilitate rapid response activities.

A plant closing and mass layoff status report has been developed and is updated monthly. The distribution of this report includes the parties noted above (except the substate grantees) DETP Management staff, Worker's Compensation Division, Labor-Management Council staff, and Wisconsin State AFL-CIO.

The CHRYSLER Project

In January 1988, the Kenosha community was shocked by the sudden decision by Chrysler Motors Corporation to close its automobile assembly plant and reduce its work force by over 5500 employees. The result portended a potential disaster for the community, which had traditionally relied on auto production for its economic well-being.

Community Response Team

Because of the advance notice given by Chrysler, a massive community-wide planning effort began prior to the layoffs. Less than two weeks after the initial announcement, the county executives of Kenosha and Racine Counties organized **Transition Teams**. They mobilized an extensive network of community leaders to guide and coordinate community response to the needs of the laid off workers and the community at large.

Kenosha's Transition Team established four committees or task forces to provide organized leadership to the planning activities. These were the ReEmployment Task Force, Community Support, Economic Development, and Human Services Task Forces. Local, county and state government, labor organizations, business and industry, educational institutions, employment services, and public and private human services agencies were represented.

ReEmployment Strategy

The ReEmployment Task Force and its sub-committees collected data from the workers, the company, and the community at large to form the basis for program planning. With help from state Dislocated Worker Program staff, the United Auto Workers - Job Development Training Corporation designed the Southeastern Wisconsin ReEmployment Program to provide a comprehensive mix of training, job search, and support services to the workers.

The program'sservice delivery network is based at the **Workers Assistance Center** in Kenosha. Satellite offices are in Racine and Waukegan, Illinois. Ties have been established with the State of Illinois and agencies in Lake County to facilitate services to Illinois residents.

The Workers Assistance Center provides a centralized, one-stop location for dislocated Chrysler workers to receive reemployment assistance and, where necessary, referral to appropriate community and human services.

Training and Employment Services

The array of basic readjustment, retraining and employment related services available at the Center includes: outreach, orientation, assessment and testing, employability development planning, basic skills training, on-the-job training, job clubs, job development and placement, as well as support services.

The Center employs a case management approach that provides each participant with a personal, individualized contact, and prevents drop outs from the program or undue delays in receipt of services. The case manager assists the participant in making training and job search choices, ensures access to needed services, and makes referrals to other community resources.

Results

Layoffs of the 5500 Chrysler workers began in December 1988. To date, over 2200 have enrolled in the program. 800 of those are in school, and 500 have already found jobs with the program's assistance.

The Southeast Wisconsin ReEmployment Program began operating in May 1988 with a $2 million JTPA grant from the State of Wisconsin. This allowed for initial program planning, development, and early intervention services to workers. A $4 million federal grant through the DOL Secretary's Reserve Account will allow continuation of services through 1990.

STRUCTURAL DEFICIENCIES IN AFFIRMATIVE ACTION EMPLOYMENT PROGRAMS

MICHAEL E. OROK, PH.D.

Abstract

The increasing influx of minorities and women into the workforce demands a thorough analysis of their actual and potential contributions. This paper attempts a discussion of the progress, if any, made by minority groups in the workforce. Additionally, the debate on the usefulness of court ordered Affirmative Action employment programs is discussed. With the continuous expansion of the United States economy since World War II, it is necesary to make predictions about future problems and how the current structure could be altered to deal with them, utilizing solutions offered.

Introduction

There has been tremendous expansion in the United States economy since the end of World War II. One of the problems of the expansion has been the United States inability to accomodate the rising labor force and the multiracial nature of new entrants into the pool; a situation not anticipated before the end of the war. As a result of this, unemployment had risen ninety percent during the immediate post war period. However, there has been a dramatic decline in unemployment in the 1980's to single digits at the exclusion of a large proportion of minorities and women. This exclusion is the premise for developing affirmative action programs designed to create parity in the workforce.

Definition

The United States Office of Federal Contract Compliance Programs, Equal Employment Opportunity of the Department of Labor defines an affirmative action program as specific and result oriented procedures to which an employer commits himself to apply every good faith effort in providing every individual with equal employment opportunity. The program is geared towards full utilization of minorities and women at all levels and in all segments of the workforce where deficiencies or disparities exist.

Since affirmative action guidelines are set up by the courts as interpreted by the EEO office, their definition must perforce be accepted at least for discussion purposes.

Problem Statement

In discussing affirmative action programs, areas of irregularities and regularities are sought. The Minority Business Enterprise Legal Defense and Education Fund, Inc., in Washington, D.C. in its August, 1989 report stated that at least six states, counties, cities, special districts and authorities court ordered set aside programs have been struck down; at least 15 or more are in litigation; nine have voluntarily terminated or suspended programs and 24 more could be revised or modified, (Perlman, 1989)

As large numbers of minorities and women enter the workforce, employers have had to wrestle with the structural adjustments accompanying the attempt at dealing fairly with a culturally diversified workforce. According to 1980 census figures and estimates for 1987 published by the Equal Employment Opportunity Office (EEO), Blacks and Hispanics will account for the largest growth in the Federal workforce (including the military) in the 21st century. A breakdown of the Civilian Labor Force (CLF) shows that although Blacks make up 11% of the labor force, they occupy the lowest ranks of white and blue collar employment. Asian Americans constitute 3.2 percent of the federal workforce as compared to 1.6 percent in the CLF; disappointingly low. A look at native American representation among the federal workforce is even more disheartening, accounting for 1 percent in the federal government (including military) and 0.5 percent in the CLF.

These staggering statistics have prompted debates over how to achieve racial parity in employment. The utilization of numerical information for correcting past disparities have caused most people to charge "reverse discrimination" in employment. Most see affirmative action programs as lowering employment standards and underscoring the merit system. The concepts of affirmative action, equal employment, merit principles and representative bureaucracy have raised intense feeling among managers as they struggle to achieve efficiency and social equity in managing human resources, (Lewis, 1989). Affirmative action programs cannot be totally condemned as some suggest, neither can they be viewed with the hope that parity in employment can be achieved only through their implementation. Key problem areas still exist, including a stereotypical assessment of minority and women abilities and skills. Such are argumentative but fit into the concerns and discontentment expressed by affirmative action supporters. These types of concerns enhance the scope of this paper.

Scope

The discussion centers around the general

BEST COPY AVAILABLE

arguments for and against affirmative action programs. The paper gives a brief overview of the nature of the federal workforce, it assesses a specific state and local government's affirmative action efforts. Program inception, changes thereafter and the courts role both positive and negative are examined. This allows for a comparative assessment of the future of the programs and also paves the way for predictions.

Methodology

Since there are significant paradigmatic changes in affirmative action program formulation, focus and general attitude of both managers and employees, the methodology of important utility is that of ferreting information that is epistomologically significant. Therefore, the myths accompanying most affirmative action programs are juxtaposed with the claim of reverse discrimination, utilizing data from previous and current research and analytical efforts in the area. Once a perspective is established, predictions for a redirection can be reached.

Analysis

The Supreme Court

There are claims that affirmative action programs perpetuate a compromising scenerio where past disparities are corrected by delimiting the efficiency of the workforce through improper employment practices. It is in order here to show that the courts, based on several circumstances of past unfair practices have previously supported these programs. Several cases come to mind. In the case of Griggs V Duke Power in 1971, the court ruled in favor of affirmative action, positing that the testing practices whereby whites were promoted more frequently than Blacks was unfair. In 1972, in the case of Sarabia V Duck, the court by utilizing declaratory relief, caused the Toledo, Ohio Police Department to hire more Blacks and Hispanics. In 1973, in Atlanta, Georgia despite a plea entered by the Fraternal Order of Police (FOP) and the Police Benevolent Association (PBA), asking the court to issue a restraining order against affirmative action hirings, the court ordered the City in 1979 to emphasize the recruitment of Blacks and Anglo candidates on an equal basis. In the suit Coser V Moore in 1984, the court found the existence of a pattern and practice of sex discrimination at the State University of New York at Stony Brook. As we move closer to the end of the century, the orientation of the court changes dramatically. Philosophical arguments against affirmative action mounts. Arguments range from the claim that affirmative action programs lead to reverse discrimination to the suggestion that preferential treatment violates equality and equal opportunity in employment as provided in the 14th amendment of the U.S. Constitution and also in Title VII of the Civil Rights Act of 1964. It is this latter claim that becomes the premise for the Supreme Court's rulings against affirmative action and "set aside" programs in 1989.

Three important cases are used to demonstrate the Supreme Court's changing orientation. First, in the case of Ward Cove Packing Co. V Frank Antonio, the plantiff claimed that whites predominantly filled skilled positions as against non whites, mostly Filipino, filling unskilled positions. The action charged the company with employment discrimination on the basis of race in violation of the provision of Title VII of the Civil Rights Act of 1964 (42 USCS §2000E- 2(A). The Supreme Court, by reversing the judgement of the Court of Appeals, ruled that racial imbalance in one segment of an employers workforce is not sufficient to establish a prima facie case of disparate impact with respect to selection of workers for the employer's other positions. The burden of persuasion according to the court remains with the plaintiff --- a prima facie disparate [illegible] to be demonstrated.

[illegible] case of Price Waterhouse V Ann B. Hopkins, in which Ann Hopkins resigned and sued an accounting firm in 1982 charging that the firm had discriminated against her on the basis of sex by consciously giving credence and effect to a partner's comments about her masculinity that resulted from sexual stereotyping. This, she claimed, was in violation of the Title VII of the Civil Rights Act of 1964 (42 USCS §§2000e et seq.) Disregarding the District Court and the Court of Appeals affirmation of her claim, the Supreme Court agreed that although the plantiff in a Title VII case proved that her gender played a part in employment decision, the defendant may avoid a finding of liability by proving by a preponderance of the evidence that it would have made the same decision in the absence of a consideration of the illegitimate factor. The court found the defendant liable for failure to discourage stereotyping but failed to grant the plantiff her plea based on a lack of convincing evidence, stating also that employers have a right of the freedom of choice.

In the case of John W. Martin V Robert K. Wills, Personnel Board of Jefferson County, Alabama, Richard Arrington, some Black individuals and a branch of the NAACP filed separate actions against the City of Birmingham, Alabama, and the Jefferson County Personnel Board alleging that the defendant had engaged in discriminatory hiring and promotion practices in the Fire Department in violation of the Title VII of the Civil Rights Act of 1964. In a related incident, white firefighters filed objection to a consent decree as amicus curiae. The District Court approved the consent decree stating that the plantiffs were precluded from challenging employment decisions, the Court of Appeals reversed the District Court's decision and

ordered a remand.

The United States Supreme Court, ruling in affirmation of the Court of Appeals, stated that the new group of white firefighters who were not party to the previous consent decree litigaton had the right to intervene without such action constituting an impermissible collateral attack under Rules 19 and 24 of the Federal Rules of Civil Procedure.

What do these decisions mean? Summarily, these decisions mean that issues of reverse discrimination have not taken the back burner, they are issues of primary consideration by the Supreme Court. The Court, however, is still indicisive on the issue of quotas, the Supreme Court still holds that quotas are necessary in order to increase minority participation at different employment levels. On the other hand, it maintains that any claim of discrimination must be based on proof that present disparity is as a result of past discrimination.

Current Nature of the Workforce

Federal Level

In analyzing the nature of the workforce in this century, the federal employment structure must be assessed. The distribution of minorities therein, presents an interesting phenomenon. Within a ten year period, 1976 to 1986, the share of white males in the Federal Labor force (including the armed services) dropped from 52.2% to 41.8%, while other groups including women continued to experience a rise in numerical representation.

Percentages of White Collar Employment Table 1

	As a Percentage of GS Workforce at GS-13 and Above			Total Change	Average Annual Change	
	1976	1980	1986	1976-86	1976-80	1980-86
MEN:						
White Non-Hispanics	50.18%	46.65%	41.77%	- 8.41%	- .90%	- .80%
Black Non-Hispanics	4.55	4.93	4.86	.31	.10	- .01
Hispanics	1.54	2.01	2.31	.77	.12	.05
American Indians & Alaskan Natives	.49	.63	.60	.11	.04	- .01
Asians and Pacific Islanders	.65	.72	1.40	.75	.02	.11
All	57.42	54.88	50.94	- 6.48	- .64	- .66
WOMEN:						
White Non-Hispanics	32.15	32.69	33.68	1.53	.16	.16
Black Non-Hispanics	8.23	9.54	11.00	2.77	.33	.24
Hispanics	1.07	1.54	2.22	1.15	.12	.11
American Indians & Alaskan Natives	.69	.77	.88	.19	.02	.02
Asians and Pacific Islanders	.64	.58	1.28	.64	.04	.12
All	42.58	45.12	49.06	6.48	.64	.66
MEN AND WOMEN COMBINED:						
White Non-Hispanics	82.33	79.29	75.45	- 6.68	- .76	- .64
Black Non-Hispanics	12.78	14.46	15.86	2.90	.42	.20
Hispanics	2.61	3.55	4.53	1.92	.24	.16
American Indians & Alaskan Natives	1.18	1.40	1.48	.30	.06	.01
Asians and Pacific Islanders	1.10	1.30	2.68	1.58	.05	.23

SOURCE: U.S. Civil Service Commission, Federal Civilian Workforce Statistics: Equal Employment Opportunity Statistics: November, 1976. Pamphlet EEO-78B, pp. 2-3; U.S. Office of Personnel Management, "CSM Fact Sheet: Minorities and Women in Federal Employment" (for September 1981); U.S. Office of Personnel Management, Federal Civilian Workforce Statistics: Affirmative Employment Statistics: September 30, 1986, Table 2. Adapted from Gregory Lewis, "Progress Towards Racial and Sexual Equality in the Fed Civil Service?" P.A. Review (May/June 1988), pp 701-703

Although the figures in Table I indicate a disparity in earnings in favor of minorities, white males earned increasingly higher salaries on the average, with the exception of Asians. Other minority males earned about one quarter less than white males. Women earned about 35 to 45% less than white males. The position then seems to be that of unequal pay for the same type of job (the issue of comparable worth has yet to be addressed). While minorities are making gains into the managerial cadre (see Table 5), their salaries are significantly lower than those of their white male counterparts.

Table 2 shows that anomaly in the Federal government GS 13 and above using group employment representation.

Employment at GS-13 and Above Table 2

	As a Percentage of GS Workforce at GS-13 and Above			Total Change	Average Annual Change	
	1976	1980	1986	1976-86	1976-80	1980-86
MEN:						
White Non-Hispanics	89.03%	86.95%	78.95%	-10.08%	- 1.02%	- 1.00%
Black Non-Hispanics	5.09	5.69	5.67	.58	.15	.00
Hispanics	1.05	1.56	1.87	.82	.12	.06
American Indians & Alaskan Natives	.36	.45	.52	.16	.03	.01
Asians and Pacific Islanders	1.04	1.17	2.00	.96	.03	.16
All	96.56	91.81	87.00	- 7.56	- .69	- .80
WOMEN:						
White Non-Hispanics	4.41	6.63	10.66	5.85	.50	.66
Black Non-Hispanics	.63	1.16	1.76	1.11	.13	.10
Hispanics	.07	.17	.30	.23	.02	.02
American Indians & Alaskan Natives	.02	.04	.09	.07	.01	.01
Asians and Pacific Islanders	.11	.19	.41	.30	.02	.04
All	5.44	8.19	13.00	7.56	.69	.80
MEN AND WOMEN COMBINED:						
White Non-Hispanics	93.44	91.58	89.61	- 4.23	- .52	- .36
Black Non-Hispanics	5.72	6.85	5.41	1.69	.28	.09
Hispanics	1.12	1.71	2.17	1.05	.15	.08
American Indians & Alaskan Natives	.37	.49	.61	.24	.03	.02
Asians and Pacific Islanders	1.15	1.36	2.41	1.26	.05	.18

**Figures have been rounded.

SOURCE: U.S. Civil Service Commission, Federal Civilian Workforce Statistics: Equal Employment Opportunity Statistics: November, 1976. Pamphlet EEO-78B, pp. 2-3; U.S. Office of Personnel Management, "CSM Fact Sheet: Minorities and Women in Federal Employment" (for September 1981); U.S. Office of Personnel Management, Federal Civilian Workforce Statistics: Affirmative Employment Statistics: September 30, 1986, Table 2.

A study conducted in 1982 addressing the issue of discrimination, unjustifiably posited that factors such as education, experience and senority accounts for the 50 percent pay differential between Blacks and whites in the public sector. In Table 2, however, the figures in terms of representation by pay grade contradict that claim. The tabulation shows that minorities are concentrated in low paying positions without regard to experience and education. Although not sustained by any statistical regularity, other claims include the following:

1. That organizational restructuring creates adverse job placement for minorities, since most organizations claim that a periodic restructuring is necessary to keep abreast of the latest technology.
2. Generally, that women employees have high absenteeism ratios while minorities usually score low on employment tests (such stereotypes have consistently thwarted affirmative action efforts.)

In all cases, the claim that the level of education affects salary structure is controversial because it emancipates specialization from job placement consideration (Reed and Miller,1970) and (Lewis,1986).

Other reports by the Bureau of Labor Statistics show a 1.7% decline in real median wages of workers between 1988 and 1989. The real wages of women took a dive while those of white males skyrocketted. While white male median weekly earnings rose form $464 to $481 within a year, that of Black males rose from

an already low level of $310 to only $318. Hispanics male remained stagnated at $297. Table 3 enumerates the comparison categorically.

Median Usual Weekly Earnings of Full-time Wage and Salary Workers by Selected Characteristics, Quarterly Averages, not Seasonally Adjusted Table 3

Characteristic	Number of Workers (in thousands)		Median weekly earnings			
			In current dollars		In constant (1977) dollars	
	1988	1989	1988	1989	1988	1989
SEX AND AGE						
Total, 16 years and over	80,178	82,276	$385	$397	$301	$190
Men, 16 years and over	44,604	47,526	450	466	235	223
16 to 24 years	5,916	6,023	263	273	137	130
25 years and over	40,690	41,501	483	497	252	267
Women, 16 years and over	33,572	34,752	312	326	163	162
16 to 24 years	5,132	4,797	240	250	125	124
25 years and over	28,440	29,986	329	346	172	172
FAMILY RELATIONSHIP						
Husbands	30,871	31,018	494	510	258	256
Wives	17,317	17,943	319	339	167	169
Women who maintain families	6,760	5,030	310	331	162	160
Men who maintain families	1,480	1,648	424	422	221	210
Other persons in families:						
Men	5,589	5,837	273	287	143	143
Women	4,224	4,299	253	257	132	128
All other men	8,662	8,987	416	427	217	212
All other women	7,075	7,494	339	362	177	180
RACE, HISPANIC ORIGIN, AND SEX						
White	68,661	70,176	394	407	206	203
Men	40,067	41,366	466	481	242	240
Women	27,995	28,970	317	332	165	166
Black	9,106	9,682	310	318	162	159
Men	4,626	4,886	336	354	186	176
Women	4,480	4,796	279	293	146	146
Hispanic Origin	6,212	6,587	297	297	155	148
Men	3,929	4,167	316	312	165	156
Women	2,303	2,420	267	289	139	144

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" group are not presented and Hispanics are included in both the white and black population groups.

Source: Bureau of Labor Statistics

Table 4 paints an even clearer picture of the workforce demographics and inherent disparities and is categorized by race and gender. Whites continue to fare better in real income and proportional representations than Blacks, Women and Hispanics.

Median Usual Weekly Earnings of Full-time Wage and Salary Workers by Age, Race, Hispanic Origin, and Sex, First Quarter 1989 Averages, not Seasonally Adjusted Table 4

Age, Race and Hispanic Origin	Total		Men		Women	
	Number of workers (thousands)	Median Weekly Earnings	Number of workers (thousands)	Median Weekly Earnings	Number of workers (thousands)	Median Weekly Earnings
TOTAL						
16 years and over	80,176	$397	47,526	$466	34,752	$326
16 to 24 years	10,799	262	6,023	273	4,787	250
16 to 19 years	1,870	218	987	215	711	199
20 to 24 years	9,111	276	5,036	286	4,076	262
25 years and over	71,447	423	41,501	497	29,986	346
25 to 34 years	22,922	420	12,484	499	10,441	349
35 to 44 years	21,879	468	12,538	531	9,343	368
45 to 54 years	16,016	471	8,950	547	5,966	356
55 years and over	8,585	421	5,041	509	3,544	328
55 to 64 years	7,609	422	4,645	516	3,184	327
65 years and over	976	353	395	456	360	322
WHITE						
16 years and over	70,176	407	41,366	481	28,970	332
16 to 24 years	9,318	266	5,215	277	4,103	253
25 years and over	60,858	439	36,151	518	24,868	354
25 to 54 years	53,357	439	31,579	516	21,778	357
55 years and over	7,502	416	4,572	511	2,930	330
BLACK						
16 years and over	9,682	318	4,886	354	4,796	293
16 to 24 years	1,330	235	665	263	664	225
25 years and over	8,356	339	4,221	386	4,132	305
25 to 54 years	7,404	340	3,753	391	3,651	305
55 years and over	952	336	468	364	484	304
HISPANIC ORIGIN						
16 years and over	6,587	297	4,167	312	2,420	289
16 to 24 years	1,339	230	830	236	508	245
25 years and over	5,247	314	3,335	341	2,012	296
25 to 54 years	4,678	311	3,044	336	1,634	271
55 years and over	570	370	289	424	280	315

NOTE: Detail for the above race and Hispanic-origin groups will not sum to total because data for the "other races" group are not presented and Hispanics are included in both the white and black population groups.

Source: Bulletin to Management, Paragraph, p. 213 Adapted from Bureau of National Affairs.

State Level

The State of Georgia

Using the State of Georgia as a case analysis, it is observed that the concentration of women and minorities continue to be at the lower skilled job levels. Table 5 is indicative of the level of differences in terms of types of jobs held by Whites, Blacks and some staggering statistics on Hispanics employment within the state despite their growth in population. Although the Georgia figures are based on 1980 census calculations, Table 6 shows projections for 1988. The State of Georgia is not alone, other states such as Alabama, Mississippi, Louisiana face similar problems of adjustment.

State of Georgia Employed Persons 16 Years and Over 1980 Figures Table 5

OCCUPATION	TOTAL	BLACKS	WHITES	HISPANICS
All Occupations	2,535,835	508,748	1,790,114	21,521
Managerial				
Executive/Administrative	237,965	20,911	213,320	2,049
Professional/Specialty	250,629	40,246	205,371	2,229
Engineers	21,497	963	19,751	287
Elem. & Second. Teachers	66,069	21,124	42,184	653
Lawyers & Judges	10,671	420	10,178	213
Supervisors/Self Employed	12,629	718	11,710	44
Supervisors/Others	27,796	1,767	25,630	597
Administrative	382,738	61,650	316,109	3,243
Supervisors	20,073	2,644	17,484	98
Machine Operators	274,920	88,669	181,692	70
Transportation/Moving	112,649	33,563	77,828	930
Handlers/Laborers	122,618	47,293	73,287	1,410
Construction Laborers	19,639	8,440	10,657	89
Manual Occupations	99,540	23,491	74,998	713

SOURCE: Georgia Department of Labor, Labor Information System. Statistic is based on 1980 Census Figures.

State of Georgia Percentage Representation in the Labor Force - 1988 Table 6

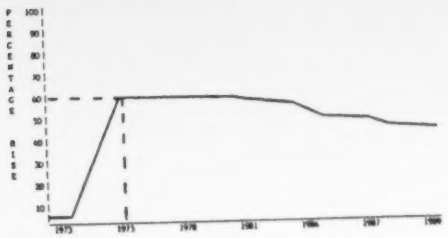
OCCUPATION	BLACK	WHITE	HISPANIC
Administrative, Managerial	22.6	75.0	.9
Chief Executive	22.0	76.5	
Managers - Salaried	8.2	90	1.0
Supervisors - General Office	12.0	86.3	.7
Cooks - Private	90.6	8.6	1.2
Housekeepers	83.7	14.7	1.6
Household Cleaners	89.6	9.2	.9
Supervisors - Police	7.2	91.7	1.1
Supervisors - Personnel Service	21.2	76.5	.9
Janitors**	53.8	44.5	1.2
Grounds Keepers**	42.1	56.6	.9
Supervisors - Mechanic	6.1	92.6	.7
Mechanics	15.3	83.5	.7
Mechanics - Apprentice	56.2	43.8	
Supervisors - Carpenters	5.6	93.5	
Supervisors - Plumbers	3.1	93.4	
Carpenters**	12.9	85.8	.9
Painters**	20.8	77.6	1.0
Construction Trades	11.0	89.0	
Supervisors - Motor Vehicles	11.0	86.4	1.9
Truck Drivers - Heavy	30.3	68.6	.9
Truck Drivers - Light	26.6	72.6	.6
Construction Laborers**	27.9	70.3	1.3
Laborers - Not Construction**	43.9	54.3	1.2

** Examples of types of jobs relegated to minorities.

SOURCE: Georgia Department of Labor, Labor Information System - 1988.

Between 1975 and 1988, affirmative action programs and court ordered consent decree programs continued to be well received. The peak year was 1975 (Lewis, 1989) with the introduction of most consent decrees, by the first half of 1989 there had been a noticable decline (Perlman, 1989). With the wave of Supreme Court cases reversing previously upheld affirmative action decisions, an even greater downward trend can be anticipated for the 21st century (see Figure I for a graphic representation of program trend).

Affirmative Action Employment Trend 1975 - 1989 Figure 1



NOTE: Graph represents a three year interval
*Before Consent decree

One may ask, at what level has affirmative action programs made an impact? The answer is clear because at no other level has affirmative action programs impacted more than the local level.

Program Accomplishments: Local Level

City of Macon, Georgia

Since the enactment of the Title VII of the Civil Rights Act of 1964 and its subsequent amendment in 1972 requiring Affirmative Action under Executive Order 11246, accomplishments under the program have been significant. For the first time, efforts were accelerated towards curbing discrimination and its attendant problems. Validation studies for police and fire entry level and promotional examinations within municipalities were stepped up as consent decrees were introduced.

Presently, the City of Macon, Georgia, under Court Ordered Affirmation Action Consent decree since 1975 has increased minority representation in employment by 25 percent (blacks and females combined) between 1975 and 1983. The Affirmative Action (AA) workforce analysis for Macon as of January 1, 1983 shows Black representation at 42.8% and females at 20.7%; a substantial improvement since 1976.

City of Macon, Georgia Affirmative Action Workforce Analysis, Jan. 1, 1983 Table 7

CIVILIANS

TITLE	Number Total	Blacks No.	Blacks %	Whites No.	Whites %	Males No.	Males %	Females No.	Females %	Underutilization Blacks	Underutilization Females
Officials&Managers	63	9	14.3	53	85.5	49	78.0	13	21.0	10	6
Professionals	80	30	37.5	50	62.5	66	82.5	14	17.5	None	10
Technicians	73	24	32.9	49	67.1	51	69.9	22	30.1	None	None
Protective Services	22	12	54.5	10	45.5	16	72.7	6	27.3	None	None
Para-Professionals	71	55	77.5	16	22.5	10	14.1	61	85.9	None	None
Office/Clerical	88	28	31.8	60	68.2	7	8.0	81	92.0	None	None
Skilled Craft	63	23	36.5	40	63.5	61	96.8	2*	3.2	None	1
Service Maint.	263	229	87.1	35	13.4	234	89.4	24	17.6	None	None
TOTAL	721	410	56.9	311	43.1	494	68.5	167	34.8		

*Females in the Skilled Craft and Service Maintenance Categories have a joint goal of 15%

POLICE

Sergeant & Above	114	17	14.9	97	85.1	106	93.0	8	7.0	10	21
Entry Level	132	31	23.5	101	76.5	114	93.9	8	6.1	10	25
TOTAL	246	48	19.5	198	80.5	220	93.5	16	6.5		

FIRE

Drivers & Above	111	11	9.9	100	90.1	111	100.0	—	—	33	17
Entry Level	185	72	38.9	113	61.1	185	100.0	—	—	None	39
TOTAL	296	83	28.0	213	72.0	296	100.0	—	—		
CONSENT TOTAL	1263	541	42.8	722	57.2	1010	79.9	183	20.7		

Source: City of Macon, GA Affirmative Action Plan 1983

Table 7 represents a workforce analysis for the City of Macon in 1983 compared to 1989, significant changes are realized (see Table 8). In Macon, women have made considerable advances. Between 1983 and 1989, Black representation had risen to 48% and females to 23%, a combined minority representation of 71% in a total workforce of 1272 employees.

City of Macon, Georgia Affirmative Action Workforce Analysis-Jan. 1, 1989 Table 8

CIVILIANS

TITLE	Number Total	Blacks No.	Blacks %	Whites No.	Whites %	Males No.	Males %	Females No.	Females %	Underutilization Blacks	Underutilization Females
Officials&Managers	67	18	26.9	49	73.1	50	74.6	17	25.4	3	3
Professionals	97	44	45.4	53	54.6	68	70.1	29	29.9	None	None
Technicians	77	32	41.6	45	58.4	46	59.7	31	40.3	None	None
Protective Services	26	16	61.1	10	52.9	22	84.7	12	35.3	None	None
Para-Professionals	56	48	85.7	8	14.3	8	14.3	48	85.7	None	None
Office/Clerical	87	40	46.0	47	54.0	6	6.8	83	95.4	None	None
Skilled Craft	62	31	50.0	31	50.0	61	98.4	1	1.6	None	None
Service Maint.	238	204	86.6	33	13.4	191	80.3	47	19.7	None	None
TOTAL	718	433	60.6	283	39.4	450	62.7	268	37.3		

*Females in the Skilled Craft and Service Maintenance Categories have a joint goal of 15%

POLICE

Sergeant & Above	121	33	27.3	88	72.7	116	95.9	5	4.1	5	25
Entry Level	125	43	34.4	82	65.6	107	85.6	18	14.4	None	13
TOTAL	246	76	30.9	168	68.1	223	90.7	23	9.3	1	38

FIRE

Sergeant & Above	118	36	30.5	82	69.5	118	100.0	—	—	11	18
Entry Level	180	36	20.0	144	80.0	179	99.5	1	.5	None	38
TOTAL	298	100	33.5	308	67.5	307	99.7	1	.50	None	65
CONSENT TOTAL	1272	611	48.0	659	52.0	980	77.0	292	23.0		

Source: City of Macon, GA 1989 Affirmative Action Program

Although the data is impressive, old problems still exist especially in the area of job skills. Minority representation still remain heavy at the office/clerical, skilled craft, unskilled labor, maintenance services levels. It is, however, undoubtedly revealing that progress at the local level is significant.

Structural Deficiencies

Several theories of inadequacies generated from analytical currents and data so far presented, suggest several structural problems. The list here represent only a fraction of what is considered to be salient observations.

I. Before the adoption of affirmative action policies in the workforce, a large pool of unskilled labor predominated the applicant pool. To compensate past disparities in employment vis-a-vis racial balance, applicants needed to be drawn from this highly unskilled pool of job applicants. Difficulty in filling highly skilled positions was envisaged and as selections began, it created a backlog of unskilled applicants who despite affirmative action quotas, could not be placed in highly sensitive and skilled positions.

II. Court ordered Affirmative Action programs are ambiguous, areas of disparities are not well defined, therefore, making all areas of employment non-exclusionary.

III. Government agencies tend to comply with Affirmative Action guidelines in order to obtain government revenue sharing funds without precisely developing a consistent plan of action for permanently eliminating racial imbalance.

IV. Governmental contribution to the irregularities cannot be overlooked. The government creates a double standard by imposing stringent employment quotas on employers on minority hiring into specialized positions while inadvertently eliminating programs such as the Comprehensive Employment and Training program (CETA) designed to train disadvantaged minorities thus making them employable.

V. Statistical documentation by the

United States Department of Labor shows that the real income of minorities continue to decrease (while college tuition continues to rise) limiting minority entrance into academic programs which are oriented towards producing a technologically advanced labor pool.

VI. Past experiences based on various workforce analysis including those presented elsewhere in this paper support the position that while some minority groups have succeeded in achieving high representation in the workforce, employers see them as lacking the skills to function at higher decision making levels, therefore, the majority of minorities are placed at the lower employment levels. They form the bulk of laborers, janitors, sanitation workers, part time employees etc.

VII. In most organizations as seen in the continuous conflict between police and firefighting groups, affirmative action balancing quotas create serious racial tension. Such lowers productivity and efficiency within the workforce.

VIII. While women are encouraged to enter the workforce, issues which enhance their participation are not always in the forefront of organizational planning and strategies. Child care concerns are ignored, some organizations have explicit policies that fail to compensate women during periods of maternity leave. A psychological re-orientation of a predominantly male controlled workforce has not occured and women continue to be relegated to traditional roles on the job.

IX. Other women issue such as comparable worth have been poorly defined. Job classifications and reclassification guidelines by most organizations still consider equal pay for similar jobs only as a dream arguing strongly against placing women in traditional male positions and paying competitive wages.

X. The recent wave of U.S. Supreme Court rulings reversing some earlier Affirmative Action decisions fail to establish parameters for measuring and documenting incidences of past discrimination. There are no specific qualifications for claiming discrimination, unfair or unequal treatment or any other form of disparity. This lack of consistency in rules administration flaws the programs.

XI. Those employers who still choose to covertly evade affirmative action specifications may utilize such employment techniques as testing, unscored interviews, casual application forms, arrest records, credit checks and marital status despite the courts prohibition of their use as factors against which employment worthiness is based.

Having enumerated these deficiencies, it seems appropriate that in the 21st century, managers, administrators and others involved in Human Resources Management ought to look for other measures that may generate positive results. The polemics are overwhelming and calls for paradigimatic changes. Such changes must entail structural reorientation and a change in organizational dynamics.

Programs to promote a harmonious relationship on the job must unavoidably include motivating factors. It is not enough to talk about a critical perspective of Affirmative Action even when such criticism is based on sound empirical information and those ferreted from solid statistical analysis. Pragmatic solutions must be suggested for consideration by human resources practitioners as a first step towards moving the workforce into the 21st century.

Beyond Affirmative Action: Suggestions for the 21st Century

If affirmative action programs are to be viewed as detrimental to organizational racial balance in employment, organizations must perforce begin to shift their emphasis from partial solutions towards making "real" improvements in their workforce. Solutions that will attract, motivate and retain productive, efficient and desirable employees without creating tensions and disrupting efficiency and production levels or compromising standards. Pragmatic suggestions include those listed here, not necessarily in order of importance.

Wage and Salary Administration

Wage and salary administration will continue to gain prominent consideration in the 21st Century. Issues such as comparable worth - argument for equal pay for the same nature of work will intensify. Such will require a restructuring of labor guidelines. For organizations, both public and private, to sustain a viable and productive workforce, the provisions of the Fair Labor Standards Act must be complied with. The workforce in the 21st Century will comprise mostly educated workers with specialized training. A more educated workforce is likely to demand equality in job assignments. Wage disparity causes discontent and may eventually generate an overwhelming number of court cases that may challenge organizational wage practices. To entice and retain minorities within the labor force, financial legislation must be considered. It has been proven to encourage economic growth and development. Minority salaries must equate increase in duties.

Training

The Comprehensive Employment and Training Act (CETA) although criticized by its opponents as a "disjointed approached to economic development", (MacManus, 1986) nevertheless provided an outlet for unskilled labor to learn to adjust to a changing work environment by acquiring new skills. When the program was eliminated the burden of training shifted to employers who were faced with large numbers of unskilled manpower expected to perform highly skilled jobs. Current employment trends show

an older workforce requiring structured training. As we proceed towards the 21st Century, the workforce will demand more training because most educated employees will seek self improvement. Management has to be prepared to meet the challenges of a transition to collegial management styles. All segments of the workforce will have to be accomodated, including Women, Blacks, Whites, Hispanics and others. Taking federal employment as a base, it is noted that minorities accounted for about 18 percent of federal workers in 1969, by 1985, the figure had escalated to 26 percent. The trend is progressive and employers must be willing and prepared to meet the challenge of training minority employees, to curb tension. Any remaining predominantly white male hierachy will have to be receptive to minority and women concerns if conflict is to be resolved or minimized, (Newell, 1988).

Employee Assistance Programs

(Kemp, 1985) views Employee Assistance programs as those programs designed to provide professional counseling services to employees whose social indulgence may affect job performance and productivity. Employee Assistance Programs (EAP's) have proven in the past to be a viable means of providing employees with outlets for rehabilitative services. One study shows that the retention rate of employees participating in EAP's have been phenomenal. Rehabilitation rates of 75 percent are not uncommon, saving the employer a substantial amount in new employee recruitment and placement. A well planned and contracted program could be most beneficial where a confidential relationship exist between the program recipient (employee) and the provider. Typical services provided by EAP's include 1. Alcohol Rehabilitation, 2. Psychological counseling, 3. Drug abuse, 4. Stress, 5. Marital/Family Counseling, 6. Financial counseling, 7. Physical/ill health problems, 8. Behavioral adjustments, 9. Weight and, 10. Smoking, (Kemp, 1985). These services give the employee a feeling of belonging and makes them sensitive to organizational goals.

Technological Changes

Learning computer systems, interfacing word processing, electronic spreadsheets, database management and a full array of automated machinery requires knowledge of their utilization and application. It is often argued that minorities remain at the lower level of employment because they lack the skills needed to perform at higher levels, but a substantial effort must also be made by the employer to keep current and increase employee skills. If a minority employee performs excellently as a production worker on the line, he/she can also be taught other skills and should be able and willing to perform as a production manager. Once such a balance is maintained, promotions, wage increases and other benefits would be based on accomplishments rather than quota.

Corporate Image

The corporate infrastructure has to be expanded to accomodate the assimilation of women and other minorities into the workforce thus creating an environment that is receptive to general participation regardless of gender or race. Future managers will have to divert their thoughts from viewing affirmative action as a moral, social and legal issue to that of an attempt to close the gender and racial gap in employment. Affirmative Action programs if properly structured will have to be recognized as a genuine effort at accomodating societal diversity including attitudinal and focus changes. Congress must also be willing to introduce labor legislation that allows for employee participation in organizational decision making.

Hiring Practices

The level of unemployment according to National Labor Statistics is expected to be at or below 5.5 percent throughout 1989. There is a genuine suspicision that there will be a scarcity of qualified workers especially in the industrial regions of the United States, namely the Northeast and Pacific Coast. Some experts have suggested a viable alternative to include, the re-employment of previously retired employees, especially those who retired early at age 55 or otherwise offering incentives to older workers to encourage their postponement of retirement. The year 2000 will experience an even greater labor shortage as skills become more specialized. Teenage employment could also be a viable option.

Race Relations

Managers and employees will have to recognize the heterogeneity of the workforce and support efforts aimed at promoting race relations. Managers and administrators must continue to search for potential problem areas and develop responsive programs. Employment, promotion and other employee benefits practices must be carefully reviewed to ensure that there are no barriers that may adversely impact various classes of employees.

Conclusion

This paper presupposes that in setting priorities for the 21st Century for "Building a Quality Workforce" managers, administrators, employees and all others involved in human resources management will in unison work towards achieving goals and raising standards. If affirmative action is not firmly implanted within organizations and managers do not adopt a mature attitude towards such programs,

BEST COPY AVAILABLE

minorities will continue to be perceived as lacking in skills but seeking benefits. The courts also must focus its rulings on affirmative action cases not on political reasons but on sound economic evidence within the context of past and current imbalances. In the absence of all these, employers must bear the burden of re-orienting their workforce so that suggestions rendered will be incorporated into management agenda and structural deficiencies will then be eliminated, or at best minimized.

References

Bureau of National Affairs. 1989. Communicator (Spring): 8

Kemp, Donald. 1985. State Employee Assistance Programs: Organization and Services. Public Administration Review (May/June): 379-381.

Lewis, William. 1989. Towards Representative Bureaucracy: Blacks in City Police Organizations, 1975-1985. Public Administration Review 43, 9 : 257.

MacManus, Susan. 1986. Linking State Employment and Training and Economic Programs: A 20 State Analysis. Public Administration Review (Nov/Dec): 640

Maguire, Daniel. 1980. A New American Justice. New York: Doubleday

Minority Employment Outlook. 1989. Federal Employment of Minorities: What Does the Future Hold (August): 2

Newell, Terry. 1988. The Future of Training. Journal of Public Personnel Management 17, 3: 265

OFCCP. 1989. Affirmative Action Guidelines-Revised Order. 4: 7-10

_____. 1979. Codified Order. 41: 6-8

Perlman, Ellen. 1989. How Affirmative Action is Faring....City and State (July): 34

U.S. LED Digest. Civil Rights 7.5; Evidence 211.3, 383, 852, 904.3 and 63. Evidence 383 and Acts 42 USCS #2000e-2(a)(1)

USER FRIENDLY PERFORMANCE MANAGEMENT

DEBORAH SPRING LAUREL

Abstract

A recent study by the national American Society of Training and Development identified "productivity improvement" and "participative management" among the top three most important topics concerning organizations as they enter the 21st century. In order for an organization to achieve quality results: (1) the necessary performance levels must be clearly defined and (2) the employees must be committed to achieving that performance. The performance management system described is based on supervisory observation and feedback, qualitative and quantitative measurement, and participative management. It presents the system currently used by the State of Wisconsin that reflects these principles and is both user friendly and legally defensible.

A Supervisory Leadership Model

It is the premise of this paper that a performance evaluation system can provide the supervisory leadership necessary to assist employees to achieve joy in their work. Employees need supervisory leadership which sets realistic work goals, clarifies the activities necessary to accomplish them, specifies expected results, and provides the necessary systems, resources, training, and feedback so that these goals can be met.

Employee success is responsive to two factors which the supervisor controls: (1) the level of difficulty of the task and (2) the manner in which work assignment and feedback are communicated. Employees will have a greater likelihood of being successful if: (1) they clearly understand what is expected of them; (2) the standard of expectation is realistic; and (3) they receive objective and timely feedback about their performance.

In addition, if they understand what the measure of success is, they can determine themselves if they have been successful. Performance evaluation can increase the probability that employees will experience the joy that stems from success on the job.

An Employee Friendly System

Dr. Deming's proposal to abolish the annual performance evaluation is an appropriate and humanistic response to evaluation systems in which supervisors use subjective criteria, hold employees accountable for results over which they have no control, and focus on rating individual performance rather than improving the system. His proposal is actually a proposal to abolish poor management practices which obstruct employees' opportunities to be successful and, therefore, experience "joy" in their

work.

However, there is an evaluation model in which supervisors provide ongoing objective coaching to employees based on mutually established job-related performance standards that are specific, observable, measurable, realistic, and within the control of the employees. Dr. Deming has stated that it is the leader's job to "help people... to do a better job." In this model, performance evaluation is effective supervisory leadership.

A Six Step Model

This model has been implemented in a performance standard-based system that was adopted by the State of Wisconsin in 1982. It incorporates the six basic steps involved in effective supervisory leadership. This paper will discuss each step and show how they increase the probability that employees will be successful in their work.

Implementing these six steps will also increase the probability that the employees will feel successful in their work. This conclusion is supported by the work of Dr. Madeline Hunter (1967) of UCLA. Dr. Hunter has organized the precepts of motivational theory into a paradigm for establishing situations intended to increase the probability of individual motivation. The six steps in our model are founded in the conclusions of this paradigm.

Step One: Identify Key Responsibilities

Step one is the identification of the key responsibilities. The key responsibilities are the general goals or objectives of the job. Each job will tend to have five or six of these key responsibilities.

An example of a statement of a key responsibility is: "The development and presentation of training programs." An employee will not know exactly what this entails until the worker activities necessary to accomplish this goal have been clearly defined.

Step Two: Clarify Worker Activities

Step two is the definition of the worker activities. These are specific activities described with action verbs and generally listed in sequential order of performance.

In this example, if the key responsibility is "The development and presentation of training programs, " a list of eight worker activities necessary to explain how that general goal is to be accomplished might be: (1) Conduct a needs assessment; (2) Establish training subject area priorities; (3) Perform research in the subject area; (4) Develop the training materials; (5) Schedule the training; (6) Present the training; (7) Evaluate the training; and (8) Revise the training, if necessary.

These two steps (the identification of the key responsibilities and their relevant worker activities) are essential to an employee's understanding of what is expected and how it is to be accomplished. Together, these two steps comprise the necessary elements of an effective assignment of work.

Step Three: Establish Standards

Step three is the establishment of qualitative and quantitative performance standards which define the minimum level of acceptable performance for significant worker activities. This minimum level of acceptable performance can be set as high as necessary as long as it is reasonable to expect that employees can perform at that level. The standards must be specific, observable, measurable, realistic, documentable, and job-related. They should focus on the critical attributes of the work, without which the work would not be accomplished.

Very often professional standards, procedures and protocols establish a minimum level of acceptable performance which can be incorporated by reference into the performance standards. For example, attorneys must abide by the rules of evidence and accountants must follow accepted accounting principles.

Standards should be consistent with the level of expertise and experience of each employee. The standards should not constrain the

employees from exercising the expertise and judgment for which they were originally hired. The standards must also be reasonable. The employees need to believe that when they expend the effort to meet the standards, there is a reasonable expectation that they will experience success. The employees will be more trusting if they feel that the situation in which they perform is fair, reasonable, and has been established in order to ensure their success (Hunter, 1967).

Qualitative and Quantitative Standards

The most effective standards are those that focus on the worker activity or activities that, if measured, will also measure whether or not the remaining activities have been performed. In the example being used, we can establish both qualitative and quantitative standards for worker activity seven, "Evaluate the training," that will let us know if the other six worker activities have been accomplished.

For example, a qualitative standard could involve an evaluation tool that is given either to the training participants and/ or their supervisors which elicits from them whether or not: (1) the training subject met their needs; (2) the training content was up to date; (3) the training presentation was accessible to them; and (4) the training notice was adequate.

A reasonable quantitative standard might be that 85% of the respondents feel that the training fulfilled these four criteria. Another quantitative standard could establish the frequency with which the training should be provided and the number of subject areas in which the training courses should be offered.

Step Four: Monitoring

Implicit in the establishment of standards is the need to monitor them. Now that the employees know how well they are expected to perform, we need to ensure meaningful and timely feedback on their performance. Step four is the identification of the means and frequency of measurement to determine the degree to which the key responsibilities and worker activities are performed in compliance with the standards.

The monitoring must be "user friendly," otherwise it will not occur. It will be"supervisor friendly" if it coincides with normal supervisory contact and activities. It will be "employee friendly" if it provides sufficient objective feedback with adequate timeliness so that if there is a problem, it can be corrected before it is repeated.

The supervisor observes the process to identify individual deviations from the standard, as well as contributing aspects of the system that need to be improved. The supervisor then coaches the employees regarding these observations. The supervisor and the employees should also identify a means of eliciting from the customers their perceptions of the quality of performance. In our example, the participants in the training sessions could provide their feedback through course evaluations.

Employee Participation

Employee participation in the decision making for the first four steps in the performance evaluation process will ensure their commitment to and trust in the process. Continuing with our example, the employees and the supervisor may mutually decide that the supervisor should audit training sessions to be able to give meaningful feedback to the employees. This way, the employees will better understand and accept the supervisor's monitoring presence than if they had no input into the decision regarding how their performance would be monitored.

At this point in the process, the employees know what they are expected to do, how they are expected to do it, how well the worker activities are to be performed, and how their performance will be measured. This empowers the employees to be accountable for doing a good job. Since they can measure their own performance against the established standards, they will not need to wait for supervisory monitoring to identify the fact that a problem exists. They will be more likely to assume

responsibility for contacting their supervisor for assistance in resolving any problem that may arise.

Step Five: Provide Feedback

Once the frequency and means of monitoring have been established, it is important that the supervisor follows through to monitor and give feedback. Step five is the provision of feedback to employees regarding the results of their work performance. Employees need to know how their performance measures against the standards. Unless the employees are specifically aware of how they are performing, they can not know where they can improve.

The statistical process central to Dr. Deming's model provides feedback on the employees' performance as it analyzes the system's process. Such feedback is just as crucial to the success of the employees as it is to the success of the process.

If employees are not performing successfully, the responsibility of the supervisor and the system should be assessed first. Was the work assignment specific enough so that the employees could comprehend the nature and extent of the worker activities necessary to accomplish the key responsibility? Were the employees sufficiently trained? Given the nature of the system and the variables which impact on individual performance, were the standards reasonable and within the control of the employees? Was the type and the frequency of the monitoring sufficient to provide constructive and timely feedback?

If things are not going well, the supervisor should give specific feedback regarding what has not gone well, elicit from the employees their understanding of the problem, and come to a mutual agreement regarding how to best address it. If things are going well, the super visor should give specific feedback regarding what went well and why.

Step Six: Take Action

Step six is the action in response to observed performance. The standards may be retained or revised. Rewards, including additional compensation, may be provided for performance that is satisfactory or better. Unsatisfactory or below standard performance may be remedied through improvements in the system, training, closer monitoring, or ultimately discipline.

Dr. Deming has described performance evaluation as a stressful annual event at which the supervisor arrives with bias and the employee arrives with fear and trembling. Neither knows exactly what is going to happen, but both know they are not going to like it.

In the performance evaluation model which I have defined, there has been ongoing dialogue throughout the year between the employee and the supervisor. When they walk into any formal evaluation session, both are already aware of the performance goals and issues. They can simply continue their dialogue to plan together for the future.

Performance Evaluation is Effective Supervisory Leadership

This six step performance evaluation model is essentially the supervisory leadership process. It enables people to do a better job. Success is a powerful motivational force. It is the key to intrinsic motivation. We do the things we do well before we do the things that we do not do well. Implementing these six steps will increase the probability of employee success.

Performance evaluations should not be annual, based upon subjective criteria, and used for comparative employee rating purposes. The performance evaluation process should involve a coaching relationship between the supervisor and the employees as they engage in a cooperative effort to improve the system. It should engender a sense of trust that stems from the use of performance standards that are reasonable, measurable, and mutually established and agreed to by the employees and the supervisor.

The supervisory leadership model of performance evaluation increases the probabil-

ity that employees will be successful and that they will feel successful. As a result, they will feel "joy" in their work and be intrinsically motivated to perform.

Reference List

Hunter, M. (1967). Motivation Theory for Teachers. El Segundo, CA: TIP Publications.

When Cultures Clash:
Managing Conflict Between Corporate Cultures and Multicultural Workforces

Irma Guzmán Wagner

Abstract

This multi-faceted world will be well represented in the national workforce of the 21st century and, as a result, corporations must be responsive to a multicultural society. It is necessary now to recognize the nature and value of cultural diversity so that demographic challenges can be met. The purpose of this paper is to discuss both corporate and ethnic culture in relation to how they might conflict, or clash, to examine the value of diversity for the corporation and its ethnic employees, and to explore ways through which different kinds of culture conflicts can be managed constructively. Specific topics that will be addressed are (a) cultural diversity and corporate culture, (b) cultural diversity and ethnic culture and (c) culture conflicts and strategies.

Two roads diverged in a wood, and I -
I took the one less traveled by,
And that has made all the
difference.

from Robert Frost's *The Road Less Traveled*

Divergence suggests conflict. Clashes can occur through the existence of more than one alternative but can afford corporations and their employees, significant opportunities to expand their vision. Conflict, defined as the interaction that centers around incompatibility (Deutsch, 1978) may be viewed by some organizations as a constructive and dynamic force. Conversely, divergence may be associated with destructive conflict and efforts to discourage or prevent diversity may occur. Divergent thinking does disrupt homeostasis (Lewin, Note 1) and corporations that value the status quo may establish cultures that reward convergent thoughts and actions. This nation, however, and the corporations that reflect its social structure (Drucker, 1974) are not static. Different thoughts and actions from different sectors of the population symbolize the workforce of the 21st century (Hodginkson, 1985). Statistics from the 1990 U.S. Census Bureau will certainly document significant demographic changes that are already in effect. The workforce of the next decade will be a microcosm of the universe. Without a doubt, this cultural diversity (Melendez, Note 2) will be accompanied by conflict, but conflict can be a positive catalyst for change - and change is what this country is undergoing and will continue to be engaged in through 1989 and beyond. Conflict is an inevitable reality that must be addressed in discussions pertaining to the development of a quality workforce for the 21st century.

This paper addresses issues that managers and trainers need to be aware of in building a quality multicultural workforce. Discussion is focused on: (a) cultural diversity and corporate culture, (b) cultural diversity and ethnic culture and (c) culture conflicts and strategies. Although basic concepts regarding culture and conflict apply across ethnic groups, examples from black and Hispanic ethnic studies will be used to illustrate potential conflicts. These two groups were included because they will be highly represented in the 21st century. (Hodginkson, 1985). It is recognized that while other ethnic minority groups have also been underrepresented, these two groups have had a longstanding record of isolation and discrimination in the United States corporate sector. (Foeman and Presley, 1987, Hodginkson, 1985).

Cultural Diversity and Corporate Culture

Acceptance of minorities as fully participating members of the national workforce requires corporations to determine whether cultural diversity is viewed positively or negatively within their systems. According to Lundberg (1985), corporate culture is the organization's view of itself mirrored in its values, symbols and behaviors. Values reflect the goals, ideals, standards and sins of the corporation and are found in philosophy and mission statements. Commitment to written values becomes visible as words are translated into company symbols and behaviors. For many years, anthropologists have used symbols to explain culture (Jelinek, 1983) and only recently has this approach been applied to studies of corporate cultures (Deal, 1982). Symbols, or artifacts (Lundberg,1985), are tangible aspects that include language, stories, myths, rituals, ceremonies and technology and are exhibited by the employees themselves and through the company's image. Symbols alone, however, are insufficient to judge a company's endorsement of a particular value. An observer needs to look at corporate culture as it is operationalized through employee behavior pertaining to socially shared norms, standards and operating procedures. Behavior and symbols are both permeated by values; all are interrelated (Lundberg, 1985). If a relationship or interrelatedness is lacking, the company might be sending mixed messages. Consequently, values, symbols and behavior require study from the perspective of congruence, or lack of it. These dimensions of culture are all indicative of a corporation's support of cultural diversity.

Valuing cultural diversity is a corporate benefit. Many advantages accrue aside from the fact that companies may be meeting legal requirements by hiring multinational personnel. One major advantage of a multicultural workforce is the "connectedness" that the company establishes with its clientele through conduits to the "real world." Diversity of thought or behavior opens alternative methods of operation in keeping with changes occurring in the external environment. Cultural diversity allows a company to stay attuned to the pulse of a changing nation. More importantly, it allows an organization to draw upon multiple talents of a diverse workforce. These are practical benefits. On a different level, John Dewey's thoughts merit attention "...our world is not one, but many; ...it is a dynamic, changing world, not static and finished...a plural world from which individuality is not to be eliminated..." (Dewey in Childs, 1939). Life is described by Dewey as a precarious world where individuals must learn to cope with new experiences in order to survive. If multicultural workforces are "new experiences," surviving corporations must learn how to work with a multidimensional labor pool. The nature and extent of conflict resulting from cultural diversity will depend on a corporation's view of itself as one that values or devalues divergence.

Ethnic minority group members who are cognizant that cultural differences may trigger

dissension can prepare for eventual conflict situations by learning as much about the corporate culture as possible. Observers can look at the culture through the lenses of values, symbols and behaviors. The goals or mission of the organization can be examined to determine what the company values or endorses. Consistency of purpose can be checked by looking at the manifestation of values or how they translate into visible symbols and behaviors. Additionally, the degree to which symbols represent values can be studied. The fact that a logo exists in a company does not imply, necessarily, that all individuals, or departments, agree upon its importance or significance. The American flag is a case in point; its significance has come under intense scrutiny during 1989. Such questioning would have been unheard of in years past. Symbols might be used to determine who stays and who goes within a corporation. (Deal in Raelin, 1986) Examples of symbols that clearly denote position within an organization are the allocation of office space and the distribution of executive keys. Observations regarding physical rewards and other allocations of power and resources provide insights into a company's value system but many other areas for inquiry exist as well. The possibilities are endless. What is important to note is that the more knowledge the ethnic minority group member has about the corporate culture, the better prepared he or she will be to make sound decisions. Conscious choices allow informed decision-makers to anticipate outcomes so that they can act proactively rather than reactively in conflict situations.

While a corporation's view of diversity may be determined by examining its culture, it is important to note, and to caution, that a corporation is a complex phenomenon which changes over time, is permeable and found in different forms throughout the organization. Generalizations regarding the corporate culture may ensue not unlike the generalizations that have been made too often and incorrectly, of distinct ethnic populations (Tajfel in Turner & Giles, 1981). Corporations reflect society and should be examined in relation to the extent that they reflect the external context within which they are embedded (Jelinek, 1983). Furthermore, the corporate culture needs to be viewed internally as it operates within a specific work setting. The extent to which corporations and their subsytems consider themselves to be homogeneous or heterogeneous, becomes a gauge of their acceptance of cultural diversity.

Cultural Diversity and Ethnic Culture

When an ethnic minority member is hired into a corporation, he or she makes a conscious decision to become a participant, or in the business vernacular, "to take part in the game." What might not be known at the time of that particular decision, is the nature of the arena, or culture, in which the "game" takes place. The extent to which cultural diversity is valued may be unknown and the ethnic may find that the corporation which acted affirmatively, may be less aggressive in assuring that he or she gain full acceptance into the workforce. Compatibility between corporate and ethnic culture is not readily apparent to the newly hired employee, but may be studied for the purposes of making informed choices. The minority employee needs to assess, not only the nature of the corporate culture as it relates to culture diversity, but his or her own identity in terms of personal and professional worth. From the point of entry into the workforce, ethnics will face situations where their differences may be undervalued or misunderstood. The potential for destructive or non-productive conflict exists in any organization and is likely to rise exponentially as diversity increases.

Studies regarding ethnicity have focused primarily on behaviors of specific groups as they are exhibited within organizations but have not addressed linkages between ethnic cultures and corporate cultures. Additional research is needed to establish relationships between the culture of an ethnic group and that of a corporation. Nonetheless, existing findings can be used to explore corporate/ethnic

culture and conflict. Divergence within ethnic groups is so vast, however, that "truth" must be sorted out as ethnic minority group members assess their own culture in relation to the work setting.

According to research conducted by Kochman (1981), it is considered rude to identify individuals as different, consequently, current literature regarding ethnicity minimizes differences and accentuates similarities. In so doing, blacks, as well as other groups, may be victims of a "Catch 22" because the denial of varying styles leaves them open to misunderstanding. Opportunities for clarification are missing. In 1982, Fant (in Foeman & Presley) reported that frequently, whites are less willing than blacks to discuss work-related social issues and view discussions of race as irritating. Two factors which Kochman found to be distressing to blacks was the perception that black's behavior is erratic and unusual rather than based on a set of cultural rules. Another factor is that many coworkers found black cultural behaviors difficult to predict and interpret. An explanation for these perceptions, may be drawn from Albert (in Kim, 1986) when he notes that loudness holds a positive value as a true expression of sincerity and conviction. Avoidance or compromise connote defeat. Blacks confront conflict more directly; whites prefer to assume cool, logical stances. Weber (in Foeman & Pressley) explained the "power of words" for blacks as emanating from pan-African culture in which the speaker must generate and create movement and power with the listeners. This is done through imaginative, vivid language and through physical expression. Shuter (1982) reported that blacks tend to be more directive in their questioning and to engage in louder interaction to display emotion, while whites tended to engage in overly solicitous and friendly communication strategies in negotiating differences. Williams (in Foeman & Presley,1987) reported that blacks usually interpret whites' politeness as gestures of concealing true intentions. As educational levels increased, cultural differences diminished across multiple variables, including communication style. (Kochman, 1981). The 1989 publication of *A Common Destiny,* points out that although many doors have been opened to blacks in the last 50 years, many more still remain closed, particularly for lower class blacks. Acceptance of black diversity in American society is still an unmet goal. (National Research Council, 1989)

In studying Hispanic school children, Albert (in Kim 1986) found that the concept of shame affected behavior. Hispanics were more cautious in their approaches than dominant group peers (Schermerhorn, Note 3). An implication of this finding for adults is that reflective behavior and hesitancy might be misinterpreted or undervalued by corporations that emphasize initiative and aggressiveness. In other studies, Hispanics are reported as being field-dependent or more likely to work cooperatively rather than independently (Melendez, 1981, Ramirez, 1978). The concept of acting together through extended families has been traced to strong familial ties among many Hispanics (Kim, 1986). Feelings of anomie, isolation or separateness in multicultural settings, were reported by Albert (1986). Vigil (1980) described the survival characteristics of Chicanos as compatible with Protestant work ethics but focusing differently on gratification. For members of this Hispanic group, achievement is a group rather than an individual reward. Attention to the person alone denies the accomplishments of the total group. Spanish expressions such as *Me da verguenza, No seas lurio,* and *Se cree muy gran cosa* represent cultural mores. Literally translated, these mean: *It gives me shame, Don't show off and He thinks himself a grand thing.* Sociologist Emile Durkheim's collectivistic culture is personified in these remarks (see Simpson, 1951).

Further research is needed to determine whether homogeneity is increasing at the expense of heterogeneity, but a more

immediate concern is to convince companies and ethnic minorities of the value inherent in diversity. Benefits for employees to retain cultural diversity depend on the degree to which companies perceive diversity as advantageous. Assuming a highly positive stance, some of the benefits in a highly valuing corporation include: (a) upward mobility because of an individual's ability to relate to multiethnic populations, (b) high status as a successful employee who can contribute differing viewpoints, (c) individual personal growth as a bicultural or multicultural individual, (d) freedom from racial prejudice and lack of sanctions and (e) higher job satisfaction. At the extreme end, adherence to cultural diversity in a nonvaluing organization or within its subsystems, could mean personal confusion. employee volatility or even dismissal.

Corporate/Ethnic Culture Conflicts and Strategies

Being fired is a probable outcome of unresolved or destructive conflict, but not necessarily the most prevalent; a more common result is daily irritation. Conflict, in and of itself, is unavoidable, but destructive, or non-productive conflict can be prevented through knowledgeable management. Destructive conflict can result in physical or psychological damage, interference with reasoned problem-solving, rupture of social relationships, escalation of differences into hardened positions, increased hostility and emotional exhaustion On the contrary, the outcomes of constructive conflict include necessary social change, emergence of creative ideas, development of solidarity, formulation of new policies and procedures, development of new services, renewal of organization and heightened enthusiasm and purpose among conflicting participants (Bisno, 1988) Obviously, it appears that the prevention of destructive conflict is in the best interest of corporations.

Conflict, like values, needs to become operationalized within a particular activity or situation in order to be analyzed; otherwise, it remains an abstraction not lending itself to analysis. Conflict is identified in the literature in a number of ways ranging from veridical conflict (in Deutsch, 1978) to personal conflict (Robert, 1982). The available typologies are endless. A useful categorization based on Deutsch's listing of probable issues that can cause conflict is presented here for consideration. Discussion of conflict management strategies is included with the analysis of the different categories. Conflicts in an organization are likely to occur over: (a) values, (b) preferences, (c) perceptions, (d) relationships and (e) resources.

Value conflict. Value conflicts are the most difficult to manage because basic beliefs do not change readily. What an individual or a company "holds dear" symbolizes a core of beliefs. Attempting to change another's value is tantamount to riding Cervantes' hypothetical windmill. The task is unrewarding, unproductive and perhaps, unnecessary. According to Deutsch (1978), it is not the difference in values that lead to conflict but the claim that one should dominate or be applied generally, even by those holding different values. "A value perspective that claims no intrinsic superiority and does not seek to force its moral views upon nonbelievers is least likely to be involved in value conflict (p.16)."

Within corporations, adherence to a basic value such as Toyota's emphasis on quality (Walton, 1986) or Nordstrom's advocacy of service (Peters & Austin, 1985), is required of all employees. Overall values of this nature are usually well-known, clearly defined and not incompatible with ethnic minority cultures. These are superordinate goals that transcend culture. Goals of this nature serve to unify employees in a corporation so that a common value is held. Diversity becomes visible in the processes by which goals are met. One strategy for managing values conflicts is to establish

superordinate goals that can be claimed universally; another is to identify different approaches for accomplishing ends. Problem-solving to identify alternatives for meeting goals gives recognition to creative-thinking and divergent approaches yet maintains corporate value systems.

Preference conflict. Preference conflicts relate to disagreements over sensitivities or sensibilities. Quite often, preference conflicts center around an individual's right to express his or her preference and another's right not to be impinged upon. "Win-lose" strategies are usually employed to manage preference conflicts and, as a result, power struggles ensue. Often, the initial and relatively trivial source of irritation, such as preference for a particular uniform or computer brand, is lost in the real conflict. Because so many preferences can irritate others, they can be used as pretexts to conceal more serious incompatibilities. Avoidance and segregation follow the inability to accommodate disparate preferences. These types of reactions lead to hardened positions which impede conflict resolution in other areas. Identification of the real issues is an important step in the management of preference concepts.

Perceptual conflict. Perceptual conflicts are associated with differing viewpoints. A person's point of view or "viewing point" is a composite of innate characteristics, values, heredity, culture, experiences and training. Disagreement results when diverse perceptions are not clarified or given sufficient opportunities to be heard. The concept of "group-think" is an example in which perceptions are guided toward uniformity at the risk of missing obvious information. Open and direct communication is an important strategy to use in clarifying perceptual conflicts. In combination with problem-solving, it provides an excellent vehicle to direct diverse thinking toward constructive outcomes.

Relationship conflict. Relationship conflicts involve the dynamics that occur in interpersonal, intra-group and intergroup interactions. Conscious or unconscious dislike of another may result in conflicts that use other pretexts as foci. Personality conflicts may emanate from perceptions or actual facts. Some people have personalities that are simply abrasive and whose patterns of interaction lend themselves to conflict. Others lack interpersonal skills and sensitivity. These characteristics are not the property of any particular group. The technique of placing employees in situations where working together is critical to task accomplishment is a common practice in industry and the military. Creating interdependence among and between employees will not change personalities, but can make relationships manageable within the work setting.

Resource conflict. Resource conflicts are easy to identify because they center around the distribution of tangible benefits such as money, position and favorable working conditions. These result in prestige, power and status - rewards that become synonymous with tangible benefits. Distribution of perquisites is a characteristic of dominant groups that Schermerhorn (1978) defines as the "guardians and sustainers of the controlling value system and as prime allocators of rewards in the society." The formation of unions is an example of an organized group seeking to gain tangible rewards from a dominant entity. On a daily basis, resource conflicts occur in many different arenas, from choice working hours to size of holiday bonuses. Profit-sharing within corporations is advocated as a strategy to reduce the feeling of powerlessness of employees, to increase employee participation and to recognize the worth of all participants, regardless of diversity. Providing equal access to the "prizes of the game" or the benefits of the corporation reduces resource conflict.

Many kinds of conflicts will be encountered in the work setting and many

more strategies will be used to prevent, maintain or manage conflict. Knowledge of diversity and the nature of conflict will allow corporate personnel to make right choices in resolving conflicts emanating from clashes between corporate and ethnic cultures. Facing cultural clashes and moving them into constructive action can result in benefits for both present and future corporations and employees.

Reference Notes

1. Kast, F. E. & Rosenzweig, J. (1979). *Organization management.* New York: McGraw-Hill, 580-82. In Lewin's force-field analysis theory, equilibrium and status quo are held in place by a balance between positive and negative forces. Disruption of forces causes change in the status quo.

2. Melendez, D., Melendez, D. C. & Molina, A. (1981). Pluralism and the Hispanic student: challenge to educators. *Theory into Practice*, 20, (1),1. Cultural diversity as defined by R. Pratte states that diversity must have concrete social reality that is reflected in behavior.

3. Schermerhorn, R.A. *Comparative ethnic relations.* (1978). Chicago: University Press, The author defines dominance in terms of a group's control and allocation of resources, rather than a group's size or mass.

References

Bisno, H. (1988). *Managing conflict.* Newbury Park, Ca: SAGE.

Childs, J. (Ed.). (1939). *The philosophy of John Dewey,* New York: Tudor.

Deal, T. & Kennedy, A. (1982). *Corporate cultures.* Reading, Massachusetts: Addison-Wesley Publishing.

Deutsch, M. (1978). *The resolution of conflict.* New Haven: Yale University Press.

Drucker, P. (1974). *Management.* New York: Harper & Row.

Foeman, A. & Pressley, G. (1987). Ethnic culture and corporate culture: using Black styles in organizations. *Communication Quarterly,* 35, 4, 293-307.

Frost, P., Lundberg, C. et al. (1982). *Organization culture.* Beverly Hills, Ca: SAGE.

Hodgkinson, H. (1985). *All one system.* The Institute for Educational Leadership, Inc.

Jelinek, M., Smircich, L. & Hirsch, P. (1983). A code of many colors. *Administrative Science Quarterly,* 28, 331-338.

Kast. F. E. & Rosenzweig, J. (1979). *Organization and management.* New York, McGraw-Hill.

Kim, Y. (Ed.) (1986). *Interethnic communication.* Newbury Park, Ca.: SAGE.

Kochman, T. (1981). *Black and white: Styles in conflict.* Chicago: University of Chicago Press.

Melendez, D., Melendez, D. C. & Molina, A. (1981). Pluralism and the Hispanic student: challenge to educators. *Theory into Practice,* 20, 1, 1.

National Research Council. (1989). *A common destiny: blacks and American society.* Washington, D.C.: National Academy Press.

Peters, M. & Austin, N. (1985) *A passion for excellence*. New York: Random House.

Raelin, J. (1986). *The clash of cultures: managers and professionals.* Boston: Harvard Business School Press.

Ramirez III, M. et al. (1976). *Chicanos: social and psychological perspectives.* St. Louis: The C.V. Mosby Co.

Robert M. (1982). *Managing conflict from the inside out.* San Diego: University Associates, Inc.

Schermerhorn, R.A. (1978). *Comparative ethnic relations.* Chicago: University Press.

Simpson, G. (1951). *Suicide: a study in sociology by Emile Durkheim.* New York: The Free Press.

Shuter R. (1982). Initial interaction of American blacks and white in interracial and intraracial dyads. *Journal of Social Psychology.* 117, 45-52.

Turner, J. & Giles, H. (1981). *Intergroup behavior.* Chicago: The University of Chicago Press.

Vigil. J. (1980) *From Indians to Chicanos.* Prospects Height. Waveland Press.

Walton, M. (1986). *The Deming management method.* New York: Perigee.

Working Today, Preparing for Tomorrow: Cooperative, Computer-Based Training Project in Artificial Intelligence

Judith E. Harris, Ph.D.
Center for Business, Industry & Labor
St. Louis Community College

Abstract

The McDonnell Douglas Corporation had a training problem: how to prepare its nationwide technical/professional workforce to incorporate emerging artificial intelligence technology into the corporation's products and processes without removing employees from their daily work environments. The solution? A three-year computer-based training project, sponsored jointly by the corporation and the State of Missouri through the Center for Business, Industry & Labor at St. Louis Community College. The total project will produce over 100 hours of standalone, easy-distributable computer instruction on building expert systems, written at a ninth grade reading level and designed to run on company-standard IBM PC's. It's entirely suitable as well for college use. This discussion describes the target audience, the nature of the courseware, the development team putting it together, and the funding arrangement that supports it.

Introduction

A few years ago, when I was a speechwriter for a university system president, my otherwise wonderful boss used to drive me crazy by using the same story in his speeches over and over. I swore *I'd* never use it, but I'm going to tell it here because it fits the theme of this discussion.

The story goes like this:

A young man walked into his boss's office and said, "I have this terrible problem."

"Stop right there," the boss said. "We don't have problems in this organization. We have opportunities."

The young man pondered for a moment. "Boss," he said, "I have this *insurmountable* opportunity."

I'll never quite understand my former boss considered that the only joke worth telling--but the phrase "insurmountable opportunity" *does* capture the situation the McDonnel Douglas Corporation faces when trying to incorporate constantly-emerging advanced technologies into its processes and products while maintaining a large workforce that it needs to keep busy turning out today's products using today's processes. While working today, they have to prepare for tomorrow.

The Training Problem

Are you familiar with McDonnell Douglas?

It's one of the nation's leaders in the defense industry, employing over 115,000 people in nine different companies nationwide. These employees range from space scientists and test pilots to custodians, although most fall into a generic classification called "engineer."

With so many technical and professional employees, it's clear that McDonnell Douglas needs to engage its workforce in continuous training. Furthermore, one of McDonnell Douglas's corporate strategic objectives is the incorporation of new technologies--artificial intelligence (AI) is specifically mentioned--into its operations. AI represents a real opportunity for the company's future.

But how to incorporate AI into company training? At least three problems present themselves:

1. Few instructors are available nationwide who are willing or able to do effective standup training in artificial intelligence--and those few who can come at a premium price.
2. Classroom training on company time carries a high price tag, too.
3. And the extent of effective learning is an issue. When you take a limited number of qualified employees away from their "real" duties to sit for a block of time trying to absorb large doses of abstract, and in some cases still theoretical, material, effective application of that information later on the job is limited, at best. And indeed, if there's a significant time lapse between the training and the opportunity to apply it, most of its value is lost.

Three years ago, the company decided it wanted to put--and keep-- its presently-employed technicians, engineers, and managers--across the corporation, almost 59,000 of them --abreast of developments in artificial intelligence, so that virtually all employees, from the research lab to the business office to the shop floor, could recognize and make AI applications on their own jobs.

The corporation wanted to do this *without*:

- Sending everybody to class
- Taking anybody off the job
- Having to create any specially-staffed tutoring labs
- Insisting that everybody have sophisticated academic prerequisites
- Having to invest in special equipment

- Spending a great deal of money

It may sound to you as if the corporation were making its opportunity insurmountable.

The Proposed Solution

But in fact, it came up with a solution. Or rather, it is well-launched into a bold plan that meets all the criteria I've mentioned.

The corporation joined with the Center for Business, Industry & Labor (CBIL) at St. Louis Community College to solve the problem. The Center for Business, Industry & Labor provides customized training of all kinds to St. Louis business and industry. This project represents only one of about 60 project that CBIL supports, but it is one of the larger ones. Funds come jointly from the corporation and the State of Missouri.

The result of this industry-education-government relationship is high-quality, up-to-the-moment technical instruction deliverable on standard company equipment to any employee who can read on the ninth-grade level and who has the interest and initiative to pursue it. Materials are designed for college use, too.

We call it the "AI CBT Project."

Perhaps as you review my description of the project, you may find something in the way we do what we're doing that you can adapt to a program of your own, in terms of:

- Providing readily available, standalone training for currently-employed workers or students
- Keeping already-trained people current in advanced technology without pulling them out of production
- Using your own workforce, not outside consultants, to recognize and make applications of the most current technology to their own jobs
- Capturing and making accessible at a relatively elementary level knowledge so theoretical that some of it, anyway, exists only the minds of a few experts
- Using the computer-based training (CBT) medium
- Developing a government-industry-education partnership to fund and staff such a project

I've already told you what our project is supposed to do. During the rest of this presentation, I'll explain the target audience, the nature of the courseware, the development team, and the funding arrangement.

The Target Audience

Our courseware is designed for the 59,000 McDonnell Douglas employees who work in any of its nine autonomous companies or at World Headquarters in St. Louis in technical, professional, and managerial positions. They represent slightly more than half the total workforce.

Perhaps a quick survey of MDC product lines will suggest the range of work environments in which our target audience functions.

Probably the best known of the MDC companies is McDonnell Aircraft in St. Louis. It produces combat aircraft, like the F/A 18 Hornet, the Harrier jet, and the F15 super sonic fighter. Douglas Aircraft in Long Beach, California, also produces commercial aircraft like the MD-80, the MD-11, and the DC-10.

Other MDC product lines include Cruise missiles, missile launchers, combat helicopters, information systems, financial services, and deep involvement with NASA's space efforts.

The computer-based training courseware that I'm about to describe is for **all** the technicians and professionals in all these companies.

The Nature of the Courseware

The AI CBT project is a three-year effort which is designed to capture (and simplify, insofar as possible) virtually all the subject matter associated with the artificial intelligence area called "expert systems" which specialists in the field can presently agree on.

Let me define the terms "artificial intelligence" and "expert systems" a little before I discuss the courseware. Artificial intelligence is beginning to impact our daily lives in ways most of us aren't aware of; it's something we should all know more about.

Briefly, artificial intelligence is the subfield of computer science that tries to develop machines capable of performing functions normally associated with human intelligence, such as reasoning, learning, and understanding human language.

Actually, "artificial intelligence" is an umbrella which covers several research areas, including robotics, computer vision, natural language processing, neural networks, and expert systems, to name the primary ones.

Expert systems--also called knowledge systems--have the most potential for commercial applications at present, and all of our courseware is aimed at teaching MDC employees to understand, design, and execute expert systems.

An expert system seeks to capture in software (for anyone to use) the knowledge, understanding, and judgment a particular human expert can apply to a certain kind of problem, like medical diagnosis, or travel-and-relocation cost estimating, or dam maintenance.

Such a system is not designed to replace the expert, but rather to free him or her from tedious repetition of tasks that have long since been mastered but that no one else has developed the expertise to cover.

The expert is then free to move on to another area where his or her years of accumulated judgment can help solve other problems.

Anyone extremely good at a task, and rare in the field, can be called an expert. You can find one as frequently on the shop floor as in a research lab.

Companies also use expert systems to capture expertise when a key employee is retiring. For example, Campbell Soup did that just before the retirement of their key equipment troubleshooter--the man who could repair anything in the factory, when everyone else was stumped.

Now let me describe the expert systems instruction that our project is producing.

The first phase produced six basic courses, which we called the "Fundamentals of Artificial Intelligence CBT Curriculum": The *AI Overview, Introduction to Knowledge Representation, Representing Knowledge as Rules, Representing Knowledge as Frames, Knowledge Acquisition, Knowledge System Tools,* and *Developing a Simple System.*

These courses are written at about a 9th grade reading level and require fairly basic computer skills.

They are designed for use on IBM personal computers, which represent McDonnell Douglas's biggest hardware base. A great many MDC employees have IBM PC's at their desks, in their departments, or in open, staffed computer labs. They can take these courses at work, after work, or at home (if they have IBM's or compatibles).

Employees take the instruction at no charge. When they complete a course, they are issued certificates, and the credit is recorded in their personnel files, where it has a bearing on promotion considerations.

Now I have been talking about our courseware as if it were intended only for McDonnell Douglas use. I want to clarify, however, that as a joint sponsor of the project, St. Louis Community College has the right to use the courseware fully in any way it wishes. The instruction is presented in quite generic terms; it contains few direct references to McDonnell Douglas.

Presently St. Louis Community College is awarding only continuing education credit for completing these AI courses, but the Center for Business, Industry & Labor's director recognizes its academic potential and is pursuing the question of its place in the academic curriculum.

Using the courseware is easy. All the Phase 1 instruction comes on disks, with information on getting started clearly explained in each user's manual.

After a student has logged on the first time, all the instructions for proceeding are on the disks. All a student has to do, fundamentally, is insert the master disk at the A: prompt and type "AI." The computer does the rest.

In fact, the computer registers the student for a course, provides information with a variety of graphics, frequent interactions, and encouraging feedback; presents practical exercises; and administers, scores, and re-administers lesson quizzes and mastery tests.

Our Phase 2 courses, presently being finished, assume that a student has completed the 50-hour Phase 1 curriculum, so the Phase 2 courses are somewhat more advanced in content. Reading level and computer operation remain simple, however.

Our Phase 2 courses offer a student instruction in managing a database for an expert system, supervising an expert system project, and exploring how an expert system presently in use at the Missile Systems Company is put together, along with practice in modifying and creating a new module for the system.

Phase 3 courses will be at an even deeper level of sophistication, including how to validate that a system does what it's designed to do, how yet another real MDC system works, and how to build uncertainty factors into the rules of thumb an expert can supply about how he or she reaches judgments.

Reaction to the quality of the courseware we've distributed so far--from both outside and inside the corporation--has been very positive. Dr. Kent Williams, Research Manager for the Institute for Simulation and Training at the University of Central Florida, called our *AI Overview* course "a superb exposition of AI fundamentals."

"This program is far superior to any text which I have read or reviewed on the subject," he said.

A branch chief at Kennedy Space Center tells us it allowed his department to be more responsive to NASA's requirement that contract proposals assess opportunities for employing AI technology. "We were unable to respond to this requirement," the chief said, "until some of our engineers...enrolled in the *AI Overview* course."

A design manager on the Tomahawk missile program called our courseware beneficial to "anyone who has responsibility for the efficiency with which tasks are completed." A leader for the Computer-Aided Design Training Group said he is "impressed with the format, structure, and content." A training coordinator at the Helicopter Company noted that interest in the courses is high there, too.

And students talk to tell us they like it. In fact, the numbers of people borrowing copies of courses from their training coordinators has risen steadily since the courseware became generally available (at no charge) earlier this year. Almost three hundred people have enrolled in our courses in the past eight or nine months, although there has been very little effort to promote them internally.

The Development Team

Have you ever wondered *who* is behind the software packages that delight or frustrate you as you're learning them? Eight people constitute the team creating the AI CBT courseware. Four of them work for the Missile Systems Company's Human Resource Development department and four for the Center for Business, Industry, and Labor at St. Louis Community College. Indeed, state funds are used largely to help defray labor costs on the project.

All team members have taught in some capacity or other, some for many years (with the handicapped) or in communication fields or in elementary school. (We're people, perhaps, who have already made at least one major career transition, responding to marketplace developments.)

Our project has a lead designer with a Ph.D. in instructional design and experience in writing computer courses for the PLATO system. We have five instructional designers--technical writers who understand the principles of instruction and the programming process. Two full-time reviewers, one for computer-based instruction principles and one for language usage, complete the roster.

The course developers on this project all work with subject matter experts in the specific subject area a course covers. Our SME's, as we call them, come both from inside the corporation and inside the academic world.

Our project's actual programmer is located in another state; we communicate with him mostly by electronic mail, sending word processed files and receiving in return programmed lessons, which we then copy to floppy disks for use.

The Funding Arrangement

I suppose you are wondering who pays for all of this. The whole three-year project will cost a total of $1.2 million. That's about $400,000 a year.

In general terms, McDonnell Douglas supplies half that sum and the State of Missouri supplies the other half. The proportions vary from year to year, but fifty-fifty is generally accurate. Given the per-hour cost of industrial classroom instruction ($15) and the ephemeral nature of that kind of instruction, this computer-based training product (at $7.40 per student hour) represents both a bargain and a substantial, reusable, widely-distributable product.

Missouri supplies the funding from two sources--the Department of Elementary and Secondary Education's Customized Training Program, and the state government's Department of Job Development and Training.

Our project is one of many the state funds because it's interested in projects that help its workforce remain employed or which expand employment. Nearly all states provide such support, as detailed in the annual directory of the National Association of Industry-Specific Training Programs.

Summary

I want to emphasize that technology-based learning like CBT definitely has a place, both in industry and in education. It may not be the sole answer to every insurmountable training opportunity, but it's very cost-effective for companies doing training on company time, trying to reach a great many employees who are working in various environments--particularly when there is an acute shortage of qualified instructors.

For employees, such training represents an opportunity, too--to acquire and upgrade valuable technological skills whether or not they spent time in engineering school.

The epistemologist Jean Piaget said that "The principal goal of education is to create [people] who are capable of doing new things, not simply of repeating what other generations have done--[people] who are creative, inventive, and discoverers."

Those of us on the AI CBT Project hope we are creating materials that will help several thousands of McDonnell Douglas employees toward that goal--both today and tomorrow.

STAGES ON THE WAY TO PARTNERSHIP

BY GEORGE F. SIMONS & GENE DEBORAH WEISSMAN

Reprinted from *Becoming Partners* (Chapter 2) with permission from Crisp Publications, Inc., Los Altos, California

To form productive partnerships both sexes and the organizations in which they work in go through certain stages of development. They become aware of problems caused by traditional gender roles and stereotypes. They react to them and begin to take responsibility for making changes. In this chapter you will learn what these stages are and find out what to do when you meet them in yourself and others.

STAGES ON THE WAY TO PARTNERSHIP

Men and women who know how to work together and organizations that help them learn about working together are likliest to succeed both today and in the future. Those that do not will be tomorrow's losers.

Conflicts between women and men and frustration with double standards can be turned into opportunities if they make us alert to our problems and lead us to action. This is not easy. It requires us to be honest about what we are experiencing as women and men, clear about what we want, and fearless in confronting ourselves, each other and our organizational values. We will go through certain stages in doing this. They can be predicted, recognized and handled better if we know something about them beforehand.

Organizational development specialists have charted the steps through which men and women pass as traditional gender roles are in conflict.[1] This does not mean that they all take place simultaneously, are the same for all individuals and organizations, or that all individuals and organizations go through every stage.

Because traditional gender roles subordinate women to men, women are almost always the ones who first to become aware that something is unfair or not working for them.

It usually takes women's anger at a double standard or complaints of harrassment, discrimination or unfairness for an organization to become aware and take action.

Men tend to react to the changes in women's attitudes toward them personally or to organizational pressures. Later they begin to discover that traditional roles and stereotypes cost them something, too.

TIPS FOR MEN

Dealing with Changing Women

Here are the stages women pass through and some tips about how to behave toward people who are in each stage. You can check (✔) those stages for which contain tips which you particularly need to practice.

☐ **Unaware**

Unconscious of the issues. Few women in our culture seem to be truly unaware once they become teenagers. ***Tip:*** *Talk about gender issues as facts of life, honestly and openly.*

☐ **Denial**

"I know that it goes on, but certainly not in our group. "Never in all my years with the company have I been discriminated against because I am a woman." Women tend to be ambivalent; they want to confront, but have been culturally conditioned to nurture. Denial feels safe. ***Tip:*** *Continue to be matter of fact about gender issues. Do not try to argue her into "seeing the light."*

☐ **Awakening**

Something happens that gets her thinking. She starts to look around herself and talk with other women. ***Tip:*** *Listen to her questions. Answer honestly. Do not blame her either for being interested in women's issues or for being less aware than other women.*

☐ **Identification**

She realizes that "all this is about me," and now sees herself as part of a distinct cultural

group—women. She begins to see the rest of the world from this new perspective. She studies, talks, and shares. Her social philosophy and criticism of men is idealistic and general, though she is unlikely to attack individual men. ***Tip:*** *Listen patiently and deal with her as with anyone enthusiastic over something new. Avoid the temptation to debate and make her wrong. Encourage her to learn more, see more sides to issues. Maintain your own self-esteem—her global assertions about men can leave you feeling helpless and enraged.*

☐ **Anger • Rage**

She sees how essentially unfair her position as a woman is and how overwhelming the forces which maintain it. Her anger is directed at authority which upholds the system, at men who are the enemy, at women who appear to collaborate. ***Tip:*** *This is a necessary and critical stage wherein a woman begins to claim her power. It is a particularly difficult time—for women because anger has been a forbidden emotion; for men because they are no longer in control of the situation. Listen actively without attacking, defending, avoiding to trying to "fix" the situation. Be in control of yourself, not of her.*

☐ **Fear • Withdrawal**

The more she sees, the more powerless she feels to do anything. If the cost of change seems too high, she withdraws, and goes back to an outward form of denial to protect herself from danger, while unconsciously rejecting all men as sexist and not to be trusted. ***Tip:*** *Do what you can to make her feel safe both in the relationship and the environment and to connect her with women who can support her. Without this support many women can vacillate between anger and withdrawal for many years.*

☐ **Confronting Issues**

She returns to the reality of the world around her, understands its dynamics, and realizes that it is up to her to make a difference in her life. She accepts the challenge of confrontation in a personal, empowering way. She is also ready to work for change with other women and even men. ***Tip:*** *Prepare yourself to accept both confrontation and collaboration. Be aware of using excuses and stereotypes as ways to avoid sharing power.*

☐ **Power**

Having developed a clear sense of identity as a woman and as a member of the working world, she gradually loses "self-consciousness" as a woman and strengthens awareness of herself as an individual She is now more able than ever before to form meaningful, productive, and co-equal work relationships with men. ***Tip:*** *This woman will have a clear sense of boundries and will let you know if you have transgressed them. Do not confuse this with anger or defensiveness. Support these men wherever you find them. They will actively intervene in the workplace to champion and model co-equality.*

Respect women in whatever stage they may be even though they don't seem to respect you.

It is never helpful to say, "This is just a stage you're going through." Such "put downs" say that that you value neither her nor her or her experience. It sends the message that you are unwilling to change and grow and cannot accept change and growth on the part of others.

Women will swing back and forth between stages of development. Don't demand that they always be consistent.

When women get stuck, is often at the Anger Stage.

TIPS FOR WOMEN

Dealing with Changing Men

Here are the stages men pass through and some tips for dealing with them. You can check (✔) those stages for which contain tips which you particularly need to practice.

☐ **Unaware**

As a member of the dominant culture the gender issues which impact him and the people around him are invisible. "The world is as it should be," and he is happy in his innocence. ***Tip:*** *See this as a normal starting point and do not dispair of men's ability to change.*

☐ **Random Data Collection**

He starts to pick up clues of what is going on around him. A few angry words, a complaint, something his wife said... He is cautiously curious. Spurts of machismo keep him safe. ***Tip:*** *Feed him information a little at a time, facts, hard data, rather than opinions.*

☐ **Denial**

"Maybe it's out there, but it certainly doesn't apply to me (us)! If he is well connected to other men like himself, he will joke about it with them and brush it off. If he is alienated from other men, he may point to them (not himself) as the problem. ***Tip:*** *Connect him to other men who will not support his denial. If he is close only to women, do not let him get away with telling you he is different.*

☐ **Critical Incident**

He has a "significant emotional event," often anger or abandonment on the part of women on whom he relied. Now he wants to get to the bottom of it so he can avoid more such incidents. At first he easily slips back into denial, but the evidence begins to stack up. ***Tip:*** *Stand by him without betraying the woman who triggered the incident. If you are the woman, don't make light of what you did.*

☐ **Identification**

The evidence is overwhelming. Women's issues are real and he is not only affected by them but also involved in and responsible for devaluing women. He is vaguely aware that this costs him something as well. ***Tip:*** *Invite him to talk about it but avoid, "I told you so!"*

☐ **Anger • Guilt**

He is angry at himself, society, other men, women who played along, his parents, even God. Angry that he can no longer avoid the issue and is cut off from men who do. "What have I done?" "How can I (men) be any good?" "What can I do?" "How can I pay attention to this and continue living a normal life?" ***Tip:*** *Do not be afraid of his anger, listen actively without probing for what you would like to hear but don't. Encourage him to talk to other men* who have gone through this stage.

☐ **Grief • Acceptance**

He begins to accept things as they are, along with his imperfections. Realizing he alone is not accountable for the history and behavior of all men toward women, he commits himself to do what he can. Sharing his experience with other men he discovers solidarity with them and becomes aware of how traditional roles have victimized men as well as women. He sees his manliness as both dignified and wounded. *Tip: Applaud his new involvement with other men You will be tempted to distrust this as a return to male chauvinism.*

☐ **ACTION**

He becomes aware that men's and women's issues are separate but related. He recognizes that women's agenda for men may not be his own, but he can learn from women's experiences. He now has energy to redefine himself and with other men to create standards for a new kind of maleness. ***Tip:*** *Old means of controlling him no longer work, but he is much more available for negotiating agreements for change.*

☐ **Power**

He starts to experience real power (not machismo) as his values and actions become aligned. He no longer "walks on eggs" around women or women's issues. Able to identify potential as well as actual issues, he can take the initiative to negotiate with someone who is "different" without needing to be in control. ***Tip:*** *This man is for you but the male power he exercises can be disturbing and you will be sometimes inclined to confuse it with machismo. He will actively intervene in the workplace to champion and model co-equality.*

Respect men at whatever stage they may be even though they don't seem to respect you.

Be both insistent and patient. Because organizations tend to embody male values and fill many of men's needs, it is difficult for men to see the need for change. When it comes to articulating their own concerns men are frequently isolated. The men's movement is much younger

than the women's movement and male support for men can be much harder to find.

Men will swing back and forth between stages of development. Don't expect them to always be consistent.

When men get stuck, it tends to be in the earlier stages, Unaware, Random Data Collection and Denial. Anger as an emotional outlet should not be confused with the Anger Stage itself.

TIPS FOR CHANGING ORGANIZATIONS

Organizations go through a series of steps in dealing with gender issues just as individuals do. Because of the male background and history of so many organizations, they tend to parallel male stages more than female stages. As you read through the individual stages below, check (✔) those which contain tips which you need to practice.

☐ **Unaware**

Organizations are legally required to know and comply with certain basic standards of equal opportunity and affirmative action. However many organizations are functionally unaware of how day-to-day gender issues actually affect their people. ***Tip:*** *Familiarize your self with the civil law and your company's policies. Then observe how people are talked to and talked about as women and men. Observe how the sexes treat each other. Where is there discomfort and hostility?*

☐ **Denial**

Most organizations are inclined to deny that gender issues are a serious concern. They concern themselves with doing whatever they were organized to do. Usually, it's the bottom line—making a profit for the participants and stockholders. They claiming that gender issues are not the work of the organization or they make the assumption that someone in the organization is taking care of this. ***Tip:*** *Facts, facts, facts. Talk about what is taking place in terms of what people are actually doing and saying, and experiencing as a result of organizational policies, structures and attitudes.*

☐ **Critical Incident**

Let a critical incident occur which threatens the organization's productivity, profitability or public image and the organization is rudely awakened from its denial. Examples would be: the threat of boycott, a sexual harassment suit, or equal opportunity violation. ***Tip:*** *Try to get "the bigger picture" which shows that this is not an isolated incident. Share this picture with others.*

☐ **Reaction**

The furor around the critical incident is greeted by disbelief—"This can't possibly be happening to us." Then the organization reacts with more denial to cover up its tracks, while it makes efforts to control the damage and "fix" the situation. It also takes precautions that similar incidents do not recur. New rules and regulations aimed at keeping people in line fall short of changing attitudes change attitudes and teaching new skills. So, when new stresses arise, people fall into old habits and more critical incidents occur. ***Tip:*** *Resist a one-sided blaming approach, i.e. this is a "women's" or a "men's" problem. Get both sexes to collaborate in finding solutions. (It's also a good time to get groups of people to study this book!)*

☐ **Pattern Recognition**

Finally, someone helps the organization recognize that a pattern exists, that the critical incidents are not just accidents but they happened and will continue to happen because of the values and structure of the organization itself. ***Tip:*** *Keep a log or a journal of what happens, how often and to whom. Discuss what you see with others and look for connections between their experiences and perceptions and your own.*

☐ **Bureaucracy**

Once the pattern is clear, the organization has one more temptation to overcome. Though a great deal of anger and guilt may be engendered as people see what has been taking place, they may fear the consequences of taking action. The task is too big, or two risky for individuals to exercise leadership. Committees are appointed to study the situation. Publications appear.

Tip: *Take responsibility for making changes that you can make personally. Create safety and encouragement for people to discuss issues openly.*

☐ **Vision**

A leader must articulate a vision of a different kind of workplace if the organization is going to jump the last hurdle, the temptation to bureaucracy. This means giving the organization a challenging and sensible picture of what it will become when both sexes collaborate fully as partners. This is a top managment responsibility but to realize the vision requires leadership at every level in the organization. ***Tip****: If you are not now a leader, you become one by having a vision and sharing it with others.*

☐ **Action**

Now the organization is ready to put into action steps that will actually change the system and train and reward people for becoming competent in dealing with the other sex. Managing gender issues becomes everybody's responsibility and a part of everyday work. ***Tip****: If your organization has reached this stage, take advantage of new opportunities to learn and acquire skills. Continue to take personal responsibility. Don't let "Joe" or "Jane" or "the organization" do it.*

Why are male-female issues so difficult to deal with? First of all, they cut deep. They force us to ask ourselves who we are and how we should act.

Secondly, although both individuals and our culture are slowly changing their values, people and organizations may be in quite different stages at the same time. Some people believe that change is "moving at a snail's pace, while others shout, "Slow down!" and still others sigh for "the good old days, when men were men and women were women."

Changing an organization is a job that is never finished. There are new people, new tasks and new challenges arriving every day. Besides, the culture (family, media, etc.) which people experience outside the organization may make them fall into old habits or resist change.

Denial and Bureaucracy are the stages in which organizations are most likely to be stuck.

WHY ARE THESE STAGES IMPORTANT?

- They help you recognize, understand and accept reactions and emotions that you experience as you face gender conflict, absorb new information and try to learn new skills. The fact that you are working through this text indicates that you are at least curious. As you continue you will find that the stages will make more and more sense to you, and you will see new ways to understand and collaborate with others. You may also advance from denial to action on issues that you have not dealt with before. Go through this article again and check the stage you feel you are in. Ask others if they would agree with you.
- They help you recognize, understand and accept the feelings and behavior of others. You probably work with people who are at all of these stages. Some will deliberately choose to stay at certain levels. Others will lack the insights, resources or support to move on. Many people get stuck at one stage for long periods. Look at your checklist once again. Does this analysis suggest why some of your relationships with people you work with are the way they are?
- They serve as a guide to what we must be do personally and organizationally to provide what's missing to integrate women and men in the workplace. What stages do these reactions suggest?

The most important thing I have learned in this article is:

_____

_____

_____

_____

_____

Here is the first step I will take for myself to help me get to the next stage.

_____

_____

_____

_____

_____

Here is one step I will take to change my organization.

_____

_____

_____

_____

_____

The stages outlined in this article invite you to view working toegether and resolving conflict as a challenge that you can meet by developing awareness and skill, rather than as a political or psychological problem. It provides you with a set of productive communication tools for every day use.

To learn more about these stages and the tasks that will accomplish partnership and productivity you can order **Becoming Partners: Working Well with the Other Sex** by sending $10.00 to LMA, Inc., P.O. Box. 140 , Milford, N.H. 03055 or calling (603) 672- 0355.

REFERENCES

[1]This model is based on the work of Judith Palmer, Carol Pierce, David Wagner, John McPherson and Bill Gregory. More about these stages can be found by reading the books listed in the Bibilography of *Becoming Partners*.

WORKING WITH INDUSTRY TO ACHIEVE INDUSTRIAL EXCELLENCE

by
Robert E. Norton
The Ohio State University

The requirements for instructor training in the nuclear electric power industry are clearly set forth in the August 1988 INPO 88-012, Guidelines for Instructor Training and Qualification. To be accredited and re-accredited, companies will need to address the initial and continuing instructional skills development called for. The initial training of instructors presents a special challenge since only a few new instructors will be employed by most companies over the next few years. Another challenge that must be dealt with is providing individ ualized remedial instruction to remove performance deficiencies identified during staff evaluations.

This presentation will explain how a group of concerned companies formed the Electric Utility Instructor Training Consortium to address this problem in a cost-effective and time-efficient manner. It will further explain how these companies collaborated with The Ohio State University to (1) conduct job and task analysis, (2) develop performancebased instructor modules, (3) conduct a field review of the modules, and (4) revise and publish the 18 modules. Further, the presentation will explain how companies like Duke Power and Virginia Power have organized their instructor training programs to provide for both effective and efficient (1) initial instructor training, (2) advanced training, and (3) continuing development. Transparencies, task lists, and other hand-out materials will be used to supplement and enhance the proposed presentation.

There is little question about the importance of preparing instructors so that they can effectively teach what they know to others. The most commonly employed criterion for the selection of instructors is their technical expertise. While technical expertise is extremely important, the quality of training is likely to be less than it should be unless these subject-matter experts also acquire the teaching skills necessary to

convey their knowledge and skills to others.

Instructors who pay little attention to the needs of the adult learners involved, the learning environment, trainee motivation, and the appropriate selection of instructional techniques and evaluation activities are unlikely to produce the learning outcomes and job performance improvements being sought. Most good instructors acquire their professional expertise through some type of formalized training program.

The situation is much the same for instructors who also design instructional programs. Without adequate knowledge of the principles of effective instructional design and acquisition of the related skills involved, instructors are not likely to develop instruction that will effectively address the company's needs.

The Problem

In today's highly competitive business and industrial environment, most training managers recognize that an effective performance-based and results-oriented training program is one of the factors most critical to a company's survival and success. In the nuclear power industry, for example, the Institute of Nuclear Power Operations (INPO) has established rigorous guidelines for acquiring initial accreditation and for maintaining the accreditation of company training programs. INPO's recently issued guidelines (March 1988; INPO-88-001) on Maintaining the Accreditation of Training in the Nuclear Power Industry states as Objective 2 that "Training staff members (utility and contracted, if used) possess the knowledge, experience, and skills required to fulfill their assigned duties." Three of the nine criteria that will be used to determine whether companies are achieving the objective are as follows:

> 2.5 The instructional skills training program develops the necessary instructor capabilities to fulfill training program requirements.
>
> 2.8 Instructor performance is evaluated regularly.
>
> 2.9 Continuing development maintains and improves required knowledge and skills and addresses results of evaluations of staff member performance.

These guidelines make it abundantly clear that utility instructors are to be given effective initial preparation, as well as

continuing instruction, that is based on regular evaluations of instructor performance.

More recently, INPO issued revised guidelines (August 1988, 88-012) in Guidelines for Instructor Training and Qualification which specify 28 areas that "should be considered for the instructional skills initial training program." While few disagree with the intent of 88-001 or 88-012, companies are often faced with some challenges as they attempt to respond to these criteria.

One difficulty arises when a company needs to provide initial performance-based training for only one or a few new instructors. The small number of persons involved often makes it very expensive and somewhat impractical to conduct a traditional instructor-led course for these persons.

A somewhat different challenge arises when the evaluations of individual instructor performance reveals that different instructors have quite different skill deficiencies, and hence, different continuing training needs. Again, an individualized or small group, performance-based training approach is required if the unique needs of different instructors are to be met.

It is widely recognized that any performance-based training program, whether for instructors or technical personnel, requires the availability of high-quality instructional materials that focus on and help deliver the specific skills and knowledge needed by the trainees. Unfortunately, performance-based materials that are self-contained and designed specifically for the professional development of instructors in the electric utility industry are still in very short supply.

Many electric utility companies have contacted the Center on Education and Training for Employment (formerly the National Center for Research in Vocational Education) to learn more about the 21-year research and development effort that resulted in the preparation of 132 PBTE (performance-based teacher education) modules that address the teaching skills needed by teachers in the public and private secondary and postsecondary schools and colleges of the United States. Over

1,800 educational agencies and over 400 companies and governmental agencies have purchased these materials.

Some electric power companies, such as Virginia Power and the Public Service Company of New Hampshire, appear to be making effective use of these modules in their current form. Other companies, however, have chosen to use the PBTE materials only as supplementary references, because some of the terminology, case studies, illustrations, and other educational features are not pertinent to industrial trainers and trainees.

What is required to meet the needs of specific companies, the INPO accreditation guidelines, and the needs of individual instructors is a set of high-quality performance-based modularized materials that address the specific training and educational needs of instructors in the electric utility industry.

Recognizing this need, several electric power companies joined with the Center in November of 1986 to organize the Electric Utility Instructor Training Consortium. In a two-phased effort the Consortium began work to accomplish three major objectives as follows:

1. To identify and verify the important tasks performed by instructors in the electric utility industry (Phase I).
2. To adapt and revise existing performance-based instructor modules specifically for use in the electric utility industry (Phase II and III).
3. To develop new performance-based instructor training modules and related support materials to meet utility instructor needs that are not addressed by an existing materials (Phase II and III).

During Phase I (November 1986 - February 1987), a comprehensive analysis of the job of electric utility instructor was conducted utilizing both a review of literature and a DACUM panel of expert instructors. This research phase of the Consortium resulted in the identification and national verification of 130 tasks as important to the job of electric utility instructor. A total of 120 expert instructors, employed at 19 different power plants by 13 companies participated in the verification effort. Phase I concluded with the publication of a job analysis report and the clustering of the 130 tasks into 20 proposed modules that were believed to be needed by all utility instructors. For a list of the 130 verified task statements (competencies), see the

Competency Profile of Industry Instructor.

To produce the performance-based modules needed, Phase II was begun in September 1987 to develop the proposed modules. Five companies (Consolidated Edison of New York, Detroit Edison, Duke Power, Florida Power, and Virginia Power) sponsored the development effort and provided resources for the development of 11 of the originally proposed 20 modules. Since the initial clustering, one module was deselected and a second was combined with another leaving a need for seven more. The development of the 11 modules was completed on December 31, 1988.

Initial reactions to the modules being developed have been extremely positive. Most reviewers have rated the modules as of very high quality and have stated that they would definitely like to use the modules in their training program. For the reactions of utility instructors and training managers to the modules, see Attachment A. For the titles of the 11 modules developed in Phase II and the titles of the additional modules now being developed, see Attachment B.

What remains to be done is to complete the Phase III development effort which began January 1, 1989. The following nine-electric power companies are supporting this developmental effort which will be completed on or before December 1989: Cleveland Electric Illuminating, Consolidated Edison of New York, Detroit Edison, Duke Power Company, Florida Power Corporation, Florida Power and Light Company, Indiana Michigan Electric, Southern California Edison, and Virginia Power. Each member company has already made plans or is currently in the process of making plans for integrating use of the materials in one or more of their training programs.

Company Plans

Some companies are planning to make major use of the modules in their initial certification training program, others plan to utilize them for advanced and/or continuing training, and all companies plan to utilize them for remediation training. Attachment C describes how the Cleveland Electric Illuminating Company plans to make extensive use of the modules in their training and certification programs. All

other member companies are devising similar implementation strategies for their companies.

It is important to make note of the fact that all companies are making adequate provision for one or more resource persons (master instructors) to be available to instructor trainees. While the modules are essentially self-contained, they are not designed as self-instructional materials. A qualified resource person(s) is absolutely critical to maximizing the successful use of these or any other modularized materials.

Plans for Publication

The Center will be arranging for the commercial publication of the modules and any supportive materials that may be developed. The actual date of publication, terms of publication and sale prices are not known as of this date. Interested persons should write to Dr. Robert E. Norton at the Center on Education and Training for Employment, The Ohio State University, 1900 Kenny Road, Columbus, OH 43210.

Relationship of Modules to INPO Guidelines

We made a comparative analysis of the competencies specified for initial instructor skills training in INPO document 88-012 entitled Guidelines for Instructor Training and Qualification with those addressed by the Consortium modules.

Of the 28 areas specified by the INPO Guidelines, 24 of them are addressed by one or more of the proposed 18 modules. That computes to approximately 86% coverage. In addition, three other important competencies will also be thoroughly addressed as follows:

Module D-4 Conduct Mock-up Training

Module E-3 Determine Test Quality

Module E-4 Evaluate Instructional Effectiveness

The additional modules, like the other 18, were found to be important during the job analysis workshop and verified as important during the national task verification research study. The four areas not scheduled to be addressed at this time (4.2.1.9, 4.2.1.12, 4.2.1.23, 4.2.1.24) could very easily be addressed by the Consortium in a future scope of work, if

approved by the board.

The 18 modules would also be appropriate for addressing at least 3 of the 5 areas specified for instructional skills continuing development (INPO 88-012, p. 15) as follows:

- o refresher topics from initial instructional skills training
- o new and advanced instructional techniques and methods
- o performance deficiencies identified during instructional evaluations

Summary

Using the cooperative development approach, Center staff has taken responsibility for module conceptualization, development, revision, and quality control. Appropriate staff from the member utility companies have helped by serving as technical consultants to the module writers and by providing field reviews of all the modules developed so as to assure their technical accuracy and relevance to the electric power industry.

The consortium operates through a Board of Members, comprised of one representative per member company. By joining and financially supporting the consortium, each company participates in policy making and program review meetings held approximately every six months.

A company's involvement in the consortium has resulted in a number of benefits, as follows:

1. For supporting the research and development needed, each company will be receiving 18 modules, targeted specifically for their instructor training needs.
2. By sharing development expertise, the Center and member companies have produced higher-quality materials than could be produced individually.
3. The consortium approach permitted the development of materials that could not be afforded by individual companies.
4. Use of the cooperative approach has resulted in the development of an important sense of ownership and commitment to use the materials produced.
5. The involvement of company personnel provided excellent professional growth opportunities for those who participated in the research, development, and review process.
6. The availability and use of the proposed industry-specific modules will assist companies in meeting and maintaining industry training program accreditation standards.
7. Upon commercial publication, the modularized materials will be available at a reasonable price to any company who can benefit from their use.

Attachment A

Electric Utility Instructor Training Consortium

WHAT DO ELECTRIC UTILITY INSTRUCTORS AND TRAINING MANAGERS SAY ABOUT THE MODULES?

The following statements were made by electric utility instructors and managers who provided field reviews of the modules.

- Truly excellent work. Reviewing work of this caliber is a joy!
- The whole electric utility industry needs these. The materials are beautiful!
- These modules will raise industry standards for instruction. They will save us time and provide for the consistent use of terminology.
- The case situations in this module (A-1) are excellent.
- The writer has done an excellent job in all respects (B-1). I am impressed with the completeness, clarity of explanations, and the considerations/ questions during design phases. I'm already copying pages to use now.
- The section concerning adult learners is very well presented and provides a solid foundation for considering appropriate instructional techniques.
- Great format; you're addressing the important things in a straightforward manner.
- These modules are effective self-study tools for individuals who teach periodically and for refresher training.
- With a few minor changes this module (D-1) is excellent. If the rest of the modules being developed are geared and focused on the electrical industry as this one is, we'll have some terrific materials with which to work.
- Our review of module D-1 revealed that the content is accurate, comprehensive, and well organized.
- Found the modules very well written and informative. I found a great amount of useful information presented in a logical, easy to understand manner.
- These modules will blow some vendor materials out of the water.

Revised 10/26/89

Attachment B

INDUSTRY INSTRUCTOR TRAINING MODULES

Category	**A:**	**Analysis**
	A-1	Determine Training Needs
	A-2	Conduct Job and Task Analyses
Category	**B:**	**Design**
	B-1	Design Instruction
	B-2	Develop Learning Objectives
Category	**C:**	**Development**
	C-1	Develop Lesson Plans
	C-2	Provide Visual and Audiovisual Aids
Category	**D:**	**Implementation**
	D-1	Present Formal Classroom Instruction
	D-2	Conduct Demonstrations
	D-3	Conduct Lab/Shop Exercises
	D-4	Employ the Case Study Method
	D-5	Conduct Mock-up Training
	D-6	Conduct Tours and Walk-Throughs
	D-7	Conduct On-the-Job Training Sessions
	D-8	Conduct Independent Instruction
Category	**E:**	**Evaluation**
	E-1	Evaluate Trainee Performance: Knowledge
	E-2	Evaluate Trainee Performance Using JPMs
	E-3	Determine Test Quality
	E-4	Evaluate Instructional Effectiveness

These modules are being developed cooperatively by the Center on Education and Training for Employment at The Ohio State University and the Electric Utility Instructor Training Consortium. Development work began in September 1987 and is scheduled for completion in 1989. For more information, contact Robert E. Norton, Consortium Manager, at the Center on Education and Training for Employment, The Ohio State University, 1900 Kenny Road, Columbus, Ohio 43210-1090, (800-848-4815) or 614-292-4353.

Attachment C

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
PERRY NUCLEAR POWER PLANT

MEMORANDUM

Date: March 3, 1989

To: Electric Utility Instructor Training Consortium

From: Laura B. Trevathan

Subject: Instructor Training for the Perry Nuclear Power Plant

Phone: (216) 259-3737 Ext. 5269

The Electric Utility Instructor Training Consortium modules will be used as the basis for initial and continuing instructor training. The materials designated as basic instructor modules will be used as initial training for new instructors. Present instructors will review the basic modules as part of their continuing training.

Three modules are specified for certification in instructional technology. Continuing instructor training will be based on job assignments, and will be comprised of additional Consortium modules, Perry procedure training, and selected professional growth topics.

Initial training for Instructors:

- B-1 Design Instruction
- B-2 Develop Learning Objectives
- C-1 Develop Lesson Plans
- D-1 Present Formal Classroom Instruction
- D-2 Conduct Demonstrations
- E-1 Evaluate Training Performance: Knowledge

Completion of these modules would prepare a new instructor for the class instructor role and the developer role.

Initial training for Instructional Technologists:

- A-1 Determine Training Needs
- A-2 Conduct Job and Task Analysis
- E-4 Evaluate Instructional Effectiveness

Continuing training for all instructors (need based):

- C-2 Provide Print Instructional Materials
- C-3 Provide Visual and Audiovisual Aids
- D-3 Conduct Lab/Shop Exercises
- D-4 Conduct Mock-Up Training
- D-5 Conduct Tours and Walk-Throughs
- D-6 Conduct On-the-Job Training Sessions
- D-7 Conduct Independent Instruction
- E-2 Evaluate Training Performance Using JPMs
- E-3 Determine Test Quality

To allow use of the Consortium materials at the earliest possible date, implementation of the modules will be executed in two steps:

- o Modules that are currently available will be implemented as soon as possible after receipt. Current Perry material that is redundant or inadequate will be eliminated.
- o Additional Perry materials will be phased out as the remainder of the Consortium modules are released.

YOUR WORKFORCE: IN-HOUSE EXPERTS

JON E. THEUERKAUF

Abstract

"There is a boom going on in America and it's not just an economic one. If the decade-long economic roller coaster ride business has been through taught one lesson, it's the importance of working training - continuing training. Never before has productivity been more vital, or qualified labor been more scarce. Given these two opposite forces, it stands to reason that companies in increasing numbers are focusing more attention on their training efforts; survival is at stake. Companies know that training is an effective way to deal with three forces that threaten their survival. These forces are foreign competition, technological change, and a mismatch between employees' skills and the work that must be done."[1] The Mentor system uses the philosophy that the people performing the jobs know those jobs and are the experts, so use their knowledge. This philosophy can enable the growth of a team effort in a company. The workers feel they have a say and that they are being listened to. Management works with the workers to decide on changes or revisions to the procedures. Working together generates reliable and usable information. So what do you do with it? Put it in a notebook or manual and throw it up on a shelf to collect dust? How about a computerized format which can grow to meet your training needs, beginning with a "living" system to store and access your Standard Operating Procedures? Such a computerized system containing Standard Operating Procedures, Standards for Process Control, Safety issues, and Training Content Requirements which would be accessible to the workers on the floor as well as management in their offices is a valuable tool in working towards building a quality work force in today's business world.

[1] Reprinted from: Employee Relations and Human Resources Bulletin, Nov. 21, 1988. Report No. 1676, section III.

Background

Knowledge from workers in your company who actually perform the jobs is invaluable. This knowledge can be put into a form where it can be used to develop training materials for new workers or for workers within the company who need to learn a new task or job. You can use the data for improvement in safety, quality, and procedure for each job. There have been computerized systems developed that can do all of this as well as to outline the tasks a person should be skilled at in a certain position.

Traditional Training Development

We used to have the luxury in most major companies to have large or at least adequate training departments. Today we are really beginning to feel the big effect from the massive lay-offs of the late 70's through the early 80's - much of which greatly affected training departments.

Prior to the lay-off period, companies had training staffs composed of learning specialists and content specialists; most of whom were from the rank and file who had moved up to the training department or into an apprenticeship program. These specialists were either trained formally to be instructors or provided the job knowledge to the specialists who developed the curriculums and modes of learning.

This method worked well with the only requirement being time. One needed a lot of time to develop materials and even longer to train personnel for their positions. Traditional training programs ranged from one to sometimes four years. This is virtually impossible in business today.

Traditional Job Improvement Strategies

Probably the most abused and misused strategy was and still is the infamous time-motion study. If one talks time-motion study or job evaluation or job study to any blue collar worker, it immediately brings to their mind a mirage of images: job elimination, job combination, increased responsibilities, and many other unpleasant but realistic thoughts. The problem with these procedures was not the implementation of them, but what they were used for. They

did not involve the people doing the jobs they were evaluating, improving or designing training materials for. This violated a basic learning and change principle that the implementors failed to acknowledge: it is easier for people to accept change or to learn things when they are involved and know the reasons behind the actions.

Future

If it is true that technology is advancing at a faster rate than our workers skill level is advancing, then business must take responsibility for ensuring the needed job knowledge of its work force. Business must do this in a faster, more efficient manner than traditional methods will allow.

We are already seeing the result of the cutbacks in training departments and a large concern for the updating of materials and of workers'skills. The average age of our skilled work force in major corporations is higher now than it ever has been. The training materials in a number of these same companies are older than the technology being used. So where is the know-how for performing these jobs? In the heads of those workers who are going to be retiring or leaving these companies in the next five to ten years!

If these companies do not begin formalizing this needed information, the future could be disastrous. As the Secretary of the Department of Labor stated a few years ago, in order for business and industry to survive, they must train and continually upgrade the skills of their workers.

Answers

Many companies no longer have the manpower to delegate these training duties within the company. This has created a need for technical training firms who virtually act as the developmental portion of a full training department. Through using the philosophy that the worker is the expert, these firms come into a company and work with the workers and management alike to develop procedures which can then be used to develop a number of training tools. By involving the people from all sides, you can produce a high quality system which everyone will use, they use it and look to improve it because they all helped build it. Often times, these procedures contain not only a step-by-step "how-to" outline of a task, but also contain such information as safety issues, standards for process control, and training content requirements. In this way, the document becomes a multi-function form, with many uses.

Computerization

Traditional storing of training materials in a three ring binder and brushing the dust off of it when it was needed disappeared with the age of computers. Software programs do exist, usually through a technical training development firm, which handle these multi-function documents in a neat, efficient manner. Through the use of personal computers networked throughout plant and management environments alike, training related information is always readily available and easy to access by anyone who needs it. Such systems store the documents and can also search for particular ones by any number of parameters such as position, area, operation, number, and various others. they also contain "message boards" - a very handy screen which each employee sees as soon as they enter into the system. Employees are notified of any changes in procedures they should be aware of, any new quality concerns or safety concerns; even personal messages such as birthdays can be read on the message screen.

Changes and updating can be made continually on only one master computer and are then transferred to each terminal. Often times, customization to a particular plant in a particular industry is done upon request.

Closing

As is obvious, training is a very necessary link to building a quality work force. Traditional methods are no longer feasible nor do they do the job as efficiently and quickly as is necessary in today's business world. A "living" system is necessary to keep up with the constantly changing economy and over and over again, it has been proven that our work force is being overlooked for the wealth of job-related knowledge it holds. Implementing this knowledge is the key to building the quality work force of the future and computerization is the key to keeping that quality alive.

Cosponsored By

University of Wisconsin-Stout,
Office of Continuing Education and Summer Session
Department of Labor, Employment and Training Administration
University of Wisconsin-Milwaukee, Center for Urban Community Development
Wisconsin Board of Vocational, Technical and Adult Education
American Society for Training and Development, Wisconsin Chapter
Wisconsin Department of Industry, Labor and Human Relations,
Division of Employment and Training Policy
Center on Education and Training for Employment,
The Ohio State University

This program is supported in part by funds administered through the University of Wisconsin Extension as part of a coordinated statewide extension program.

BEST COPY AVAILABLE